DOCUMENT RESUME

ED [illegible]230 CE 008 245

TITLE	Exemplary Competency-Based Vocational Teacher Education Project: Career Education Component. Competency and Criteria Identification Phase: Professional Competencies and Assessment Criteria for Implementing the Career Education Concept in Vocational Education Programs in Florida. Series No. 6.
INSTITUTION	Florida State Univ., Tallahassee. Program of Vocational Education.
SPONS AGENCY	Florida State Dept. of Education, Tallahassee. Div. of Vocational Education.
PUB DATE	76
NOTE	80p.; Pages 31-35 (table of competency ratings) and pages 48-61 (table of assessment criteria for competencies) may not reproduce well in hard copy because of small type. For related documents see CE 008 244-246, CE 008 366-369, and CE 008 657
EDRS PRICE	MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS	*Career Education; Job Analysis; *Performance Based Teacher Education; *Performance Criteria; Program Development; State Programs; State Surveys; Tables (Data); *Task Analysis; Teacher Education; Teacher Qualifications; Vocational Education; *Vocational Education Teachers
IDENTIFIERS	Florida

ABSTRACT

One of a series of nine reports of Project ACTIVE (Attaining Competence for Teaching in Vocational Education), this report focuses on the criteria for assessing mastery of the professional competencies (skills) important to personnel implementing the career education concept into vocational education programs in Florida. An overview of competency-based vocational teacher education (CBTE) and the exemplary CBTE project is provided. Part 1 describes the competency identification phase of the career education component including review of related research, a questionnaire survey of vocational educators involved in career education in Florida, the findings (competencies with mean importance ratings), and conclusions. Part 2 describes the procedures for identifying and validating of specific criteria for assessing mastery of the competencies and lists the criteria in a 14-page table under 87 competency statements grouped into the following categories: (1) Program planning, development, and evaluation, (2) instructional planning, (3) teaching methods- media, (4) student evaluation, (5) management, (6) guidance, (7) school-community and student relations, (8) instructor's professional role and development, and (9) unique competencies. It is recommended that the assessment criteria be reviewed and revised to fit the needs of particular inservice or preservice programs designed to prepare or upgrade career education personnel and vocational teachers of vocational programs in Florida. Appendixes contain instruments used in the study. A bibliography is included. (TA)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED131230

EXEMPLARY COMPETENCY-BASED VOCATIONAL TEACHER EDUCATION PROJECT:

CAREER EDUCATION COMPONENT

COMPETENCY AND CRITERIA IDENTIFICATION PHASE:

PROFESSIONAL COMPETENCIES AND ASSESSMENT CRITERIA FOR IMPLEMENTING THE CAREER EDUCATION CONCEPT IN VOCATIONAL EDUCATION PROGRAMS IN FLORIDA

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

PROJECT DIRECTOR — DR. ROBERT E. ANDREYKA

PROJECT COORDINATOR — DR. WILLIAM E. BLANK

GRADUATE ASSISTANT — MS. ERMINE OWENBY
MR. MARVIN STEWART

Program of Vocational Education
Florida State University
Tallahassee, Florida 32306

In Cooperation With
Florida State Department of Education
Division of Vocational Education
Tallahassee, Florida

1976

CE 009 145

Final Report of
Competency and Criteria Identification Phase
Of Career Education Component

Project No. VTAD-5 #6-0128

From September, 1975 to June, 1976

EXEMPLARY COMPETENCY-BASED VOCATIONAL TEACHER EDUCATION PROJECT: CAREER EDUCATION COMPONENT

PROFESSIONAL COMPETENCIES AND ASSESSMENT CRITERIA FOR IMPLEMENTING THE CAREER EDUCATION CONCEPT IN VOCATIONAL EDUCATION PROGRAMS IN FLORIDA

Program of Vocational Education
Florida State University
Tallahassee, Florida 32306

Dr. Robert E. Andreyka

The project reported herein was conducted pursuant to a grant from the Division of Vocational-Technical Education, Florida Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgments in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent the official position or policy of the Florida Department of Education.

FOREWORD

The competency-based teacher education (CBTE) movement is being explored as a viable alternative to the traditional time-based, course oriented approach to teacher education. The field of vocational-technical teacher education has been involved in CBTE for some time. Several states and teacher education institutions are developing and implementing competency-based programs aimed at preparing and certifying professionally competent vocational educators at various levels. Florida's commitment to competency-based vocational teacher education is well-known.

In an effort to promote CBTE for vocational education, the Florida Department of Education, Division of Vocational Education funded the initial phase of an exemplary competency-based vocational teacher education project at Florida State University. This project, called Project ACTIVE is aimed at developing a viable competency-based approach to preparing vocational teachers, administrators, supervisors, and related professionals.

Several individuals have contributed significantly to the progress of this project. Mr. Joe Mills, Director of Vocational Education, Division of Vocational Education, Florida State Department of Education, and Dr. Kenneth Eaddy, Chief, Bureau of Vocational Research, Dissemination and Evaluation, have demonstrated their personal and professional commitments to the competency-based approach. Their support and leadership have made this project possible.

The project staff wishes to acknowledge the valuable contribution made by jury members who validated preliminary competency statements and assessment criteria. Their input has added greatly to the validity of the project findings. The reader should refer to pages 24 and 46 for a complete listing of jury members. Finally, vocational educators throughout Florida who responded to the survey instrument are gratefully acknowledged.

Robert E. Andreyka
Project Director & Program Leader
Vocational Education
Florida State University

This report is one of a series that focuses on the competency and criteria identification phase of the Exemplary Competency-Based Vocational Teacher Education Project at Florida State University. Each report covers one of the teaching, leadership, or special needs components within the project. This series of reports is listed below:

Report No.

TEACHING COMPONENTS

1. COOPERATIVE VOCATIONAL EDUCATION
2. INDUSTRIAL ARTS (competency ident. only)
3. TRADE AND INDUSTRIAL (also delivery system)
4. VOCATIONAL BUSINESS EDUCATION

LEADERSHIP COMPONENTS

5. ADMINISTRATION/SUPERVISION
6. CAREER EDUCATION
7. RESEARCH AND EVALUATION

SPECIAL NEEDS COMPONENTS

8. DISADVANTAGED
9. HANDICAPPED

TABLE OF CONTENTS

FOREWORD . . . . . *iii*

LIST OF TABLES . . . . . *vii*

LIST OF FIGURES . . . . . *vii*

OVERVIEW 1

COMPETENCY-BASED VOCATIONAL TEACHER EDUCATION . . . 3

Origin of the CBTE Movement. 3
Need For Competency-Based Vocational Teacher Education 4
Competency-Based Vocational Teacher Education Programs 5
Competency-Based Vocational Teacher Education in Florida 7

EXEMPLARY CBTE PROJECT AT FLORIDA STATE UNIVERSITY . 9

Goals and Objectives 9
Conceptual Model 10
Competency and Criteria Identification Phase 15

CAREER EDUCATION COMPONENT 17

PART I--COMPETENCY IDENTIFICATION PHASE. 19

CHAPTER

1. Introduction--Competency Identification Phase. 19
2. Review of Related Research. 21
3. Methodology for Identifying Competencies . 23
4. Findings and Discussion--Competencies . . 27
5. Conclusions. 41

PART II--CRITERIA IDENTIFICATION PHASE 43

6. Methodology for Identifying Criteria . . 45

7. Findings--Criteria 47

APPENDIXES 63

BIBLIOGRAPHY 87

LIST OF TABLES

TABLE		Page
1.	Sample Included in Study	23
2.	Questionnaire Returns	27
3.	Age of Respondents By Group (%)	28
4.	Sex of Respondents By Group (%)	28
5.	Number of Years in Present Position (%)	29
6.	Number of Years in Vocational Education (%)	29
7.	Highest Degree Held (%)	30
8.	Importance Ratings of Competencies by Career Education Personnel and Vocational Teachers	31
9.	Items Rated in Upper 25% in Two or More Groups Studied	36
10.	Competencies Rated Significantly Different By County Career Education Directors and Vocational Teachers	38
11.	Assessment Criteria for Competencies	48

LIST OF FIGURES

FIGURE		
1.	CBTE Conceptual Model	11
2.	Elements of CBTE Conceptual Model	12

OVERVIEW

OVERVIEW

COMPETENCY-BASED VOCATIONAL TEACHER EDUCATION

Very few movements in education have received more widespread attention than the competency-based teacher education (CBTE) movement. Houston and Howsam (1972) reported that rarely, if ever, has any movement swept through teacher education so rapidly or captured the attention of so many in so short a time as has the competency-based movement. Already well underway, the approach offers promise of renovating and regenerating teacher education. Equally significant, the authors added, it appears probable that it will do so in record time.

For those who doubt whether competency-based teacher education is with us to stay, the following sampling of national involvement in CBTE may be somewhat surprising (Andreyka and Blank, 1976):

- over 30 states report either legislative/administrative support for CBTE or are studying the concept seriously;
- nearly a hundred teacher education institutions report either "total" CBTE programs or alternative programs;
- there are at least 20 national consortia, institutes, centers or other groups whose primary or major function is the promotion of the CBTE movement; and
- literally hundreds of articles, position papers, monographs and other publications dealing specifically with CBTE appear monthly.

It seems, then, that much of the time we now spend philosophizing and debating the relative merits and demerits of CBTE and whether it will survive should, perhaps, be directed toward implementing the concept and making it work.

Origin of the CBTE Movement

Like any major educational trend, it is impossible to establish the exact date marking the beginning of the competency-based teacher education movement. The concept seems to have evolved slowly and steadily during the past two decades. Schmieder (1973) has identified some of the motivational forces that appear to have given impetus to the CBTE movement:

1. Introspection of the Educational Community
2. Emphasis on accountability

3. Increased focus of political action on fiscal issues

4. Management organization movement

5. Press for personalization and individualization of education

6. Desire of state education departments to develop more effective certification processes and standards.

Elam (1971) in one of the earliest in-depth looks at the competency-based teacher education movement, placed the origins of CBTE somewhat earlier. He pointed out that CBTE predates the current rage for accountability and most probably has its roots in the general conditions present in society and the institutional responses to them characteristic of the Sixties.

The vocational teacher education field has been involved in the CBTE movement for some time. Early studies by Walsh (1960), Courtney (1968), Crawford (1967), Ratner (1967) and others were aimed at identifying competencies important to vocational and technical teachers and related personnel. The comprehensive competency-based vocational teacher education research and development project at the Center for Vocational Education (Cotrell, et al, 1971) was begun in 1967, before the development of much of the current popularity of CBTE.

Need For Competency-Based Vocational Teacher Education

For many years, vocational and technical teachers, administrators, supervisors and related personnel have received their professional preparation in traditional university-based programs. These programs usually consist of a series of courses focusing upon the acquisition of knowledge and which culminate in a paper and pencil evaluation. This course-oriented approach for preparing teachers and individuals in leadership roles is coming under criticism for not meeting the real needs of practitioners (Finch and Hamilton, 1975; Norton et al, 1975).

Among the shortcomings associated with the traditional approach are:

1. Objectives are vague or general

2. Program is content and textbook-oriented

3. Assessment is only cognitive in scope

4. Content and objectives are based upon tradition

5. Program focuses on general principles but seldom relates these to the problems faced by educators

6. Instruction is not tailored to the needs of individuals

7. The end product is not systematically evaluated

8. Minimum standards of acceptable performance are not established.

Finch and Hamilton (1975) reported that many of the professional courses completed by vocational and technical teachers are offered in random sequence and often focus on principles and techniques related only generally to the teacher's actual role in the classroom and laboratory. Schaefer (1971) reported that present vocational teacher education programs amount to nothing more than small encounters with a large and complex personnel development problem.

Competency-Based Vocational Teacher Education Programs

An increasing number of vocational-technical teacher education programs are exploring the competency-based approach for preparing teachers, administrators, supervisors, and related professionals. Some programs have primarily focused on the professional needs of teachers in particular service areas while others have addressed the professional needs of vocational-technical educators in several service areas and levels. While space does not permit a detailed review of competency-based vocational-technical teacher education programs currently in operation, the following does give a brief overview of some CBTE research and development activities which have focused on identifying competencies needed by vocational educators at various levels and in several service areas.

A study by Courtney (1968) identified the need for a common core approach to competency identification. Courtney reported that much of the controversy surrounding teacher education deals with determining what should be included in programs. A second study (Courtney and Halfin, 1969) involved the identification of professional competencies needed by instructors in vocational agriculture, home economics, trade and industrial education, distributive education, and business education. Forty randomly selected teachers from four different states participated in the study. An important aspect of this research was the use of factor analysis for grouping competencies into categories.

Spaziani and Courtney (1971) conducted a research project in which secondary and community college teachers were asked

to rate 99 professional competencies. The rating scale used was an adaptation of Bloom's taxonomy of educational objectives (Bloom, 1956). Competencies were rated according to level of proficiency needed by teachers: knowledge, comprehension, application, analysis, synthesis, or evaluation.

Terry, Thompson, and Evans (1972) completed a study in Illinois in which 107 vocational educators from all service areas were assembled and asked to identify and categorize professional competencies needed by vocational and technical teachers. Four-hundred-seventy-seven competencies were identified in this manner.

A comprehensive common core CBTE research and development project was conducted by the Center for Vocational Education at The Ohio State University (Cotrell et al., 1971). First, professional competencies (performance elements) common to teachers in all vocational service areas were identified as well as additional competencies important to teacher-coordinators in cooperative vocational education programs. Performance-oriented objectives were then developed for each performance element identified. A total of 384 performance elements were identified by the Center's research.

Next, self-instructional curricular materials based upon the competencies previously identified were developed. Modules were developed that were designed to help teacher trainees attain specific professional competencies. More than 100 separate modules in 10 categories were developed that incorporated the 384 performance elements (Center for Vocational Education, 1974).

These competency-based teacher education modules underwent advanced testing at Colorado State University, Rutgers University, and Florida State University during 1975 (Center for Vocational Education, 1975). Ten additional test sites were added during the Fall of 1975, one in each of the 10 United States Office of Education regions (Hamilton, 1975).

Volger and Patton (1974) reported on a department-wide CBTE program in the University of Michigan occupational educational program. This program was designed to prepare trade and industrial, health occupations, vocational business, and distributive education teachers with generic professional competencies. This program began in 1971 and is now fully implemented. Competencies originally identified by the Center for Vocational Education constituted the basis of the program.

Competency-Based Vocational Teacher Education In Florida

There has been a considerable amount of research and development activity in competency-based vocational-technical teacher education in Florida. In its 1974 report, the Florida State Advisory Council for Vocational-Technical Education recommended that efforts to identify unique competencies needed by teachers in specific vocational program areas be continued and upgraded (Florida Department of Education, 1974). It was reported that during fiscal year 1974 work was begun in State Department funded projects to identify unique professional competencies in home economics, industrial, and diversified education.

In a publication entitled The Florida Program For Improving the Training, Evaluation, and Licensure of Educational Personnel (Florida Department of Education, 1971) it was reported that the executive committee of the Teacher Education Advisory Council requested that a plan be devised to improve teacher education and certification in this state. Current research and development activities reported included:

1. Develop comprehensive statements of teacher competencies and develop instruments for assessing them

2. Conduct research to demonstrate the relationship between teaching competency and student learning

3. Identify and produce material for training teachers and other educational personnel in specified competencies

4. Assist institutions and school districts with staff development for teacher training personnel.

A study was conducted in 1972 (Lima) to identify competencies important to Florida's business education teachers. In 1974, a study was conducted in Florida aimed at identifying common and unique competencies for teacher coordinators in work experience and diversified cooperative training programs. A study completed in 1975 (Perkins) identified 164 professional competencies important to Florida's trade and industrial education teachers.

Phase I of a competency-based teacher education project aimed at trade and industrial education teachers has been completed in the state of Florida (Andreyka, 1975). This program has identified 32 entry level competencies needed by that state's T & I teachers. Also identified were assessment criteria that may be used to assess mastery of the competencies. The project also involved the review of samples of competency-based teacher education instructional materials available from

throughout the country. A wide variety of individuals was involved in competency and criteria identification and validation. Participating were trade and industrial education teachers, administrators and supervisors, teacher educators, state department representatives, Board of Regents representative, and the Florida Industrial Education Association.

Phase II of this project addressed four major issues involved in implementing CBTE. These issues were implementation of CBTE in the university setting, development of a viable preservice and inservice program and the identification of alternative funding sources for competency-based teacher education.

A study completed in 1976 (Blank) identified over 100 professional competencies important to community college technical instructors in engineering, health, distributive, business, and public service technologies in Florida.

EXEMPLARY COMPETENCY-BASED VOCATIONAL TEACHER EDUCATION PROJECT AT FLORIDA STATE UNIVERSITY

Florida State University as well as other universities in Florida and throughout the nation currently prepare teachers and related professionals using the traditional course-oriented approach. These traditional teacher education programs usually vary in content relevance and overall program quality. The FSU Competency-Based Vocational Teacher Education Project was initiated because of feelings by many vocational educators that traditional university courses might not be meeting the real needs of vocational teachers and related professionals.

The Exemplary Competency-Based Vocational Teacher Education Project at Florida State University is aimed at developing and implementing a totally competency-based professional vocational education program. Called Project ACTIVE (Attaining Competence for Teaching In Vocational Education), the project's intention is to overcome many of the shortcomings of the traditional course-oriented approach to preparing professionally competent vocational and technical teachers and related personnel. This is an exemplary project and could serve as a research base for developing a CBTE model for other Florida universities and also other states.

This report is one of a series and it focuses on one component of the project. Other reports have been prepared describing the other teaching, leadership and special needs components within the project. This series of reports covers the initial phase of the project: *Competency and Criteria Identification*. Listed below is the report number for each component.

Goals and Objectives

The long-range goal of the project is to develop an exemplary competency-based vocational teacher education and leadership development program. The project is aimed at meeting the professional needs of the following groups, both at the preservice and inservice levels:

Report No.

TEACHING COMPONENTS

1. Cooperative Vocational Education
2. Industrial Arts
3. Trade and Industrial
4. Vocational Business Education

LEADERSHIP COMPONENTS

5. Administrators/Supervisors
6. Career Education Specialists
7. Researchers

SPECIAL NEEDS COMPONENTS

8. Disadvantaged
9. Handicapped

The research effort was designed to accomplish the following objectives:

**1. Identification and validation of professional competencies (skills) important to vocational teachers and professional support personnel.

**2. Identification and validation of specific assessment criteria for assessing mastery of competencies.

3. Development and/or adoption of performance-based, self-paced learning packages designed to help participants master important competencies.

4. Development of evaluation instruments and strategies providing for objective assessment of competency mastery while the participant is performing in an actual school situation.

5. Implementation of a competency-based program in a traditional university setting.

6. Development of instruments and strategies for overall program evaluation.

**The first two objectives have been accomplished and they are the focus of this series of reports.

Conceptual Model

The first step in the exemplary project was to develop the conceptual framework of the CBTE program. After reviewing various conceptual models of CBTE programs (Elam, 1971; Houston and Howsam, 1972; Norton et al, 1975) the project staff developed a model which would be suitable for vocational-technical teacher education (Andreyka and Blank, 1976). Figure 1 shows a schematic of this model while Figure 2 explains each element of the model in more detail.

Figure 1

CBTE CONCEPTUAL MODEL

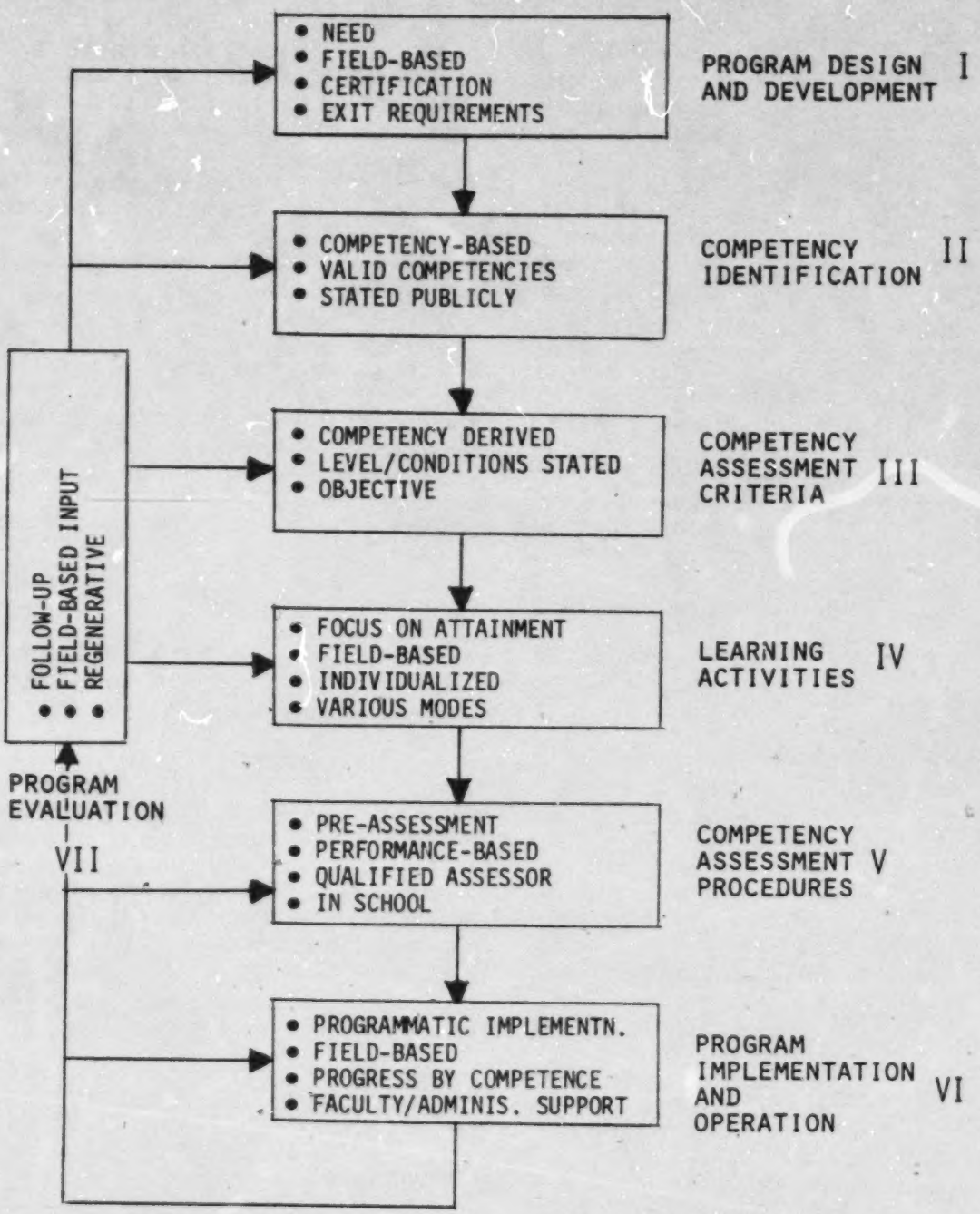


Figure 2

Elements of CBTE Conceptual Model

I. Program Design and Development

A. *Need Identification.* A thorough statement should be provided on the need for the program, including its advantages over the present program and benefits to prospective teachers and their potential students.

B. *Field Based Design Effort.* Evidence should be available that input was received from teachers, state department personnel, parents, students, principals, advisory committees and professional organizations during program design.

C. *Certification.* Program should produce certifiable individuals; certification personnel should be consulted to allow for certification by mastery of competencies rather than by course completion.

D. *Emphasis on Exit Requirements.* The program should place primary emphasis on recording mastery of competencies and eliminating non-relevant entrance requirements.

II. Competency Identification

A. *Basis for Program.* The program should be based solely on appropriate prespecified competencies that have been identified as being important to teachers.

B. *Valid Competencies.* Competencies should be validated by consensus of opinion of qualified experts, or sound research base such as task analysis, teacher poll, literature search or other.

C. *Statement of Competencies.* Teacher trainees should be able to demonstrate, whenever possible, the mastery of competencies as they are stated, and competencies should be made public in advance.

III. Competency Assessment Criteria

A. *Derived from Competencies.* Criteria for assessing competency mastery should be based solely on the competencies themselves.

B. *Expected Level of Performance and Conditions.* The

expected level of performance for successful mastery and under what conditions should be stated and made public in advance.

C. *Objective Assessment Criteria.* Assessment criteria should be specific and objective and based on observable performance by teacher trainee.

IV. Learning Activities

A. *Focused on Competency Attainment.* Learning activities should be focused solely on helping teacher trainees master pre-specified competencies.

B. *Field Based.* Learning activities should be based on actual teaching conditions wherever practical.

C. *Different Modes Available.* Various modes of instruction should be utilized including mediated instruction.

D. *Individualized Instruction.* Self-instructional and self-paced instruction should be available where practical.

V. Competency Assessment Procedures

A. *Pre-Assessment.* Opportunities should be available for pre-assessment for diagnostic purposes and to permit credit for competencies already mastered.

B. *Based on Performance.* Competency mastery should be based primarily on teacher-trainees performance and/or desired change in behavior of students.

C. *Setting.* Assessment should be carried out in an actual school setting whenever practical.

D. *Qualified Assessor.* Assessment should be carried out by one or more qualified resource persons who have teaching experience.

VI. Program Implementation and Operation

A. *Programmatic Implementation.* Total program should be competency based rather than course by course substitution.

B. *Faculty/Administrative Support.* Program should have necessary faculty and administrative support to function on a competency based format.

C. *Field Based.* Program implementation should involve teachers, state department, parents, principals, professional organizations, students and others.

D. *Progress by Competence.* Teacher trainees should proceed through program based on competency mastery rather than by course or time frame.

VII. Program Evaluation

A. *Follow-up.* Follow-up procedures should be established to determine if graduates are as effective as graduates from other programs.

B. *Field Based.* Program evaluation should receive input from various sources in the schools.

C. *Used for Program Improvement.* Program evaluation data should be used directly to improve the program.

Competency and Criteria Identification Phase

This series of reports covers the initial phase of the project which identified professional competencies important to practitioners in each component of the project. Also identified were specific assessment criteria that may be used to assess mastery of the competencies. Subsequent phases of the project will be based upon these professional competencies identified and validated as important to vocational teachers, administrators and related support personnel throughout Florida. Professional competencies important to practitioners within each area of the project were identified, along with assessment criteria, by surveying vocational educators in the field.

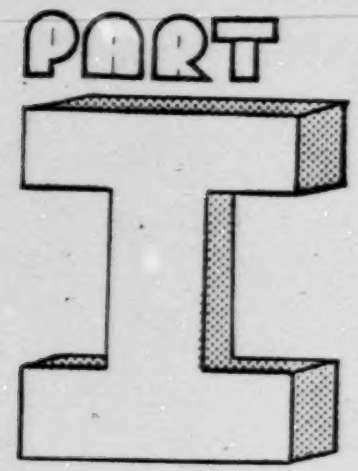
Preliminary lists of competencies were identified in each component within the three major areas of the project--teaching, leadership and special needs. Each preliminary competency list was submitted to a jury consisting of persons with expertise in the appropriate area, for preliminary validation. Jury members had broad latitude to revise, add, or delete competency statements.

Based on comments of jury members, the competency statements were revised, compiled on a survey instrument, and submitted to a sample of practitioners in the field for each component of the project with the assumption that teachers and other professionals were qualified to identify competencies most important to them.

These survey instruments were mailed to vocational and technical teachers, administrators, supervisors, researchers, career education specialists and cooperative vocational education teacher-coordinators. These individuals rated each competency as to its importance to them in their positions. Data from returned instruments were analyzed to identify significant differences among sub-groups within each component.

For each competency validated as important, specific, objective assessment criteria were written that may be used by an evaluator to assess whether individuals have mastered the competency. Preliminary criteria statements were written for each competency, submitted to a jury comprised of individuals with expertise and experience in that particular area, and revised based upon a synthesis of jurors' comments.

Later phases of the project will include the adoption and development of learning materials, development of assessment strategies and instruments, implementation in the university setting, and development of program evaluation techniques. This report describes the competency and assessment criteria identification phase for one component within the project. Additional reports have been prepared describing the competency and criteria identification phase of the other teaching, leadership and special needs components.



CAREER EDUCATION COMPONENT–
Competency Identification

CHAPTER 1

INTRODUCTION - COMPETENCY IDENTIFICATION PHASE

Many segments of our society including parents, students, business and civic groups are calling for a shift in the traditional academic focus of education to a more career oriented approach. The need has been explored to find a better means of aiding students in shifting from the role of student to the role of worker. Because education is the primary link between social needs and social improvement, new and better relationships in education must be provided to help individuals find their place in society. The career education movement has emerged as a major vehicle in redirecting the American educational system (Budke, et al, 1972).

Need

Like any major thrust in education, there is a need for qualified practitioners to develop, implement and evaluate the career education model in our school systems. While career education has been endorsed by many individuals, groups, and institutions, it seems little activity has been directed toward the training and re-training of qualified professionals in career education.

Several leaders in the career education movement have expressed the need for new and better programs to train individuals for implementing career education. Marland (1974) stated: (p. 189)

> It will be the classroom teacher who ultimately will determine whether career education will become a reality. Counselors have a large and crucial role to play. And the successful installation of a comprehensive career education system requires all teachers and supporting personnel to assimilate new knowledge, new skills and new attitudes which must result in new professional behaviors. This is no easy task, and to prepare staff for the implementation of career education in the classrooms of our schools and colleges will first call for changes in the traditional teacher-training institution for. . . teachers, and changes in teaching philosophy on the part of many professors of higher education.

Purpose

In order to successfully implement the career education concept into traditional vocational education programs, the competencies most important for this implementation process should be identified. The primary purpose of this study was to identify the professional competencies most important to vocational educators who are involved in implementing the career education concept into regular vocational education programs in Florida. A second purpose was to identify specific, objective assessment criteria that may be used to evaluate competency mastery.

CHAPTER 2

REVIEW OF RELATED RESEARCH

The review of related research focused on previous research and related projects aimed at identifying professional competencies needed by vocational educators involved in career education implementation. The review revealed that there appears to be very little formal research in this area although several related projects were found.

Hoyt (U.S. HEW, 1974) in a policy paper on career education for the United States Office of Education identified several areas of competence needed by various levels of practitioners in implementing career education. Competencies were listed for teachers, community leaders, guidance personnel, administrators, and family members.

Budke, Bettis and Beasley (1972) identified seven components characteristic of most career education programs in this country. Among the seven components was "in-service teacher education." This component involves planned activities designed to give teachers the competencies needed to operate career education programs. The authors added that career education has tremendous implications for teacher education and inservice teacher training. Vocational educators, it was reported, need to "develop an interest and competency in working with elementary and junior high school children."

Burkett (1973) reported on some of the difficulties inherent in preparing practicioners with needed competencies.

> Are teachers ready for career education, and, if they are not, what are the consequences of attempting to impose the system on them? Most likely, no such imposition would be made, and teachers, from whose ranks come many administrators and curriculum coordinators, would be allowed to carry on as always rather than have a single school or education system disrupted. Inservice programs to retrain teaching personnel would do much to alleviate this problem.

Smith and Woodin (1973) completed a study in the state of Tennessee aimed at analyzing inservice programs currently operating in the area of career education. Among the concepts included in the programs were curriculum development and career awareness while little activity was found in the area of guidance and counseling.

CHAPTER 3

METHODOLOGY FOR IDENTIFYING COMPETENCIES

The methodology utilized for the study was a descriptive survey using a questionnaire distributed by mail to vocational educators involved in career education.

Selection of the Subjects

The population for the study consisted of the career education directors and county staff in Florida's 67 school districts and vocational education teachers in vocational programs throughout Florida. Sixty-one of the 67 career education directors were found to be responsible for county-wide career education programs and were included in the study.

These 61 county directors were asked to identify county staff members and vocational education teachers in their county who were doing a satisfactory job of implementing the career education concept. Table 1 shows the sample of vocational teachers, county career education directors, and staff members included in the study.

Table 1

Sample Included in Study

Group	N
County Career Education Directors	61
Vocational Teachers and County Staff	159
Total	220

Development of the Instrument

The project staff developed a preliminary list of professional competencies that appeared to be important to vocational educators implementing the career education concept. These preliminary items were based on the review of related research plus input from participants in a career education workshop sponsored by McGraw-Hill Book Company. This workshop was held in Tallahassee, Florida, during July of 1975. Workshop participants seeking college credit were asked to submit a list of competencies they felt were needed to implement career education.

Items submitted by workshop participants and items taken from the review of research were compiled into a preliminary competency list to be submitted to a jury for preliminary validation.

Validation by Jury

The preliminary list of competency statements was submitted to a four member jury for validation. Jury members were asked to critically review the competency statements and add, delete or alter items based on their expertise and experience in career education. The following individuals served on the jury:

1. Dr. Romeo Massey, Coordinator, Instructional Design Development Division, Career Education Center, Florida State University, Tallahassee, Florida

2. Dr. Ora Kromhout, Team Leader, Instructional Design Development Division, Career Education Center, Florida State University, Tallahassee, Florida

3. Dr. Hollie Thomas, Associate Professor, Vocational Education Program, Florida State University, Tallahassee, Florida

4. Mr. Earl Clark, Graduate Research Assistant, Vocational Education Program, Florida State University, Tallahassee, Florida.

Revision of the Instrument

The preliminary competency statements were revised based on the comments of the jury members. Several items were deleted, several were added while others were reworded.

The final competency statements were printed as the survey instrument (see Appendix A). The instrument contained 89 competency statements, a section with items about the professional background of respondents, and several blank spaces in which respondents could add competencies they felt were important. Respondents rated each item on a 6 point rating scale (1 = very important and 6 = not important), based on the importance of each item to them in implementing the career education concept.

Collection and Analysis of Data

A packet containing the instrument, a cover letter (see Appendix B) and a postage-paid, pre-addressed return envelope was mailed to the 61 county career education directors. Additional packets containing a cover letter for teachers (see Appendix C) were sent to county directors for distribution to vocational teachers involved in career education activities.

After the initial mailing a follow-up was undertaken in order to increase the percentage of returns. A follow-up letter (see Appendixes D and E) and an additional instrument and return envelope was sent to non-respondents.

Data from returned instruments were transferred to punched cards and analyzed by computer. The following analysis of data was performed:

1. A one-way analysis of variance was utilized to determine whether significant differences existed in the mean importance ratings of competencies among groups of county career education directors, vocational teachers, and county staff.

2. The Newman-Keuls test was utilized to identify the source of significant differences in the mean importance ratings of competencies among groups of county career education directors, vocational teachers, and county staff.

3. A t-test was utilized to determine whether significant differences existed in the mean importance ratings of competencies between all county career education directors, and all vocational teachers.

CHAPTER 4

FINDINGS AND DISCUSSION - COMPETENCIES

This section presents the findings of the study based on analysis of data from returned instruments.

Return Rates

Of the 220 instruments distributed, 131 were returned for a return rate of 60 percent. Eighteen of the returned instruments were found to be unusable.

Table 2

Questionnaire Returns

Group	Dis-tributed	Returned	%
County Career Ed. Directors	61	55	90
Vocational Teachers and County Staff	159	76	48
Total	220	131	60

Professional Data

Included on the instrument were items seeking information about the background and present professional status of respondents. This data may be useful by providing a profile of career education personnel in vocational programs in Florida.

Table 3 shows the age of respondents.

Table 3

Age of Respondents By Group (%)

Age	Groups			All Groups N=117
	County C.E. Directors N=56	Vocational Teachers N=47	County Staff N=14	
20-30	14	30	39	23
31-40	19	23	23	21
41-50	35	21	39	30
51-60	28	23	0	23
over 60	0	2	0	1

Table 4 shows the sex of career education personnel. This table shows that 60 percent of all respondents were female.

Table 4

Sex of Respondents By Group (%)

Sex	Groups			All Groups N=117
	County C.E. Directors N=56	Vocational Teachers N=47	County Staff N=14	
Female	71	47	62	60
Male	24	53	39	37

Table 5 shows the number of years respondents have held their present positions. The table indicates that 78 percent of all respondents have held their present positions for less than 6 years.

Table 5

Number of Years In Present Position (%)

Years	Groups			All Groups N=117
	County C.E. Directors N=56	Vocational Teachers N=47	County Staff N=14	
1-5	91	57	93	78
6-10	4	30	0	14
11-15	5	4	0	4
16-25	0	4	0	2
over 25	0	4	0	2

Table 6 shows the number of years respondents have taught in a vocational education program.

Table 6

Number of Years In Vocational Education (%)

Years	Groups			All Groups N=117
	County C.E. Directors N=56	Vocational Teachers N=47	County Staff N=14	
1-5	58	40	57	50
6-10	8	31	36	22
11-15	13	16	0	12
16-25	5	4	0	4
over 25	18	9	0	11

Table 7 shows the highest degree held by career education personnel.

Table 7

Highest Degree Held (%)

Degree	Groups			All Groups N=117
	County C.E. Directors N=56	Vocational Teachers N=47	County Staff N=14	
High School	2	2	7	3
Associate	4	9	0	5
Batchelor's	11	38	14	22
Master's	61	38	43	50
Specialist	13	11	14	12
Doctorate	11	0	14	7

Importance of Competencies

Table 8 shows the mean importance rating of each competency statement on the survey instrument for each group of career education directors, vocational teachers, and county staff. Also shown on Table 8 is the average rank for all groups. The average mean resulted from computing the simple average of all three groups. The average mean was utilized, rather than the mean for all respondents, because of unequal numbers of respondents in each group. The numbers in parentheses appearing below the rank and mean within each group denote significant pairs identified by the Newman-Keuls test. For example, item 13 was rated significantly different by vocational teachers (2) and career education directors (1), and also by vocational teachers (2) and county staff (3). Of the 89 competency statements on the instrument, 36 received significantly different mean importance ratings among groups of county career education directors, and vocational teachers and county staff at the .05 level or better.

Table 8

Importance Ratings of Competencies by
Career Education Personnel and Vocational Teachers

Rank / Avg. Mean	Item	Competency	Rank/Mean/(Sig. Pairs) Career Ed. Director (1) N=56	Voc. Teachers (2) N=47	County Staff (3) N=14	F Ratio
1 / 1.267	86	Assist students in developing career decision-making skills.	3 / 1.4305	26 / 1.9017	27.5 / 2.0000	.408
2 / 1.586	25	Use variety of community resources.	2 / 1.3929 (2)	15 / 1.7234 (1)	3 / 1.6429	2.967
3 / 1.616	63	Maintain good community relations.	4 / 1.4364	6 / 1.4894	14 / 1.9231	2.145
4 / 1.620	64	Maintain positive working relationships with other individuals, organizations.	5 / 1.4545 (3)	3 / 1.4043 (3)	22.5 / 2.0000 (2,1)	3.864*
5 / 1.657	76	Assist students in developing positive attitudes toward work.	28 / 2.0370 (2)	1 / 1.3191 (1)	1.5 / 1.6154	4.328*
6 / 1.807	69	Use cooperative and other "hands-on" experiences.	53 / 2.4444 (2,3)	2 / 1.3617 (1)	1.5 / 1.6154 (1)	10.429***
7 / 1.829	20	Use services of other professionals to support career education program.	24 / 1.9649	20.5 / 1.8085	4 / 1.7143	.528
8 / 1.836	55	Manage resources such as time, money, materials, etc.	7 / 1.5273 (2)	44.5 / 2.2128 (1)	5.5 / 1.7692	6.214**
9 / 1.841	16	Identify strategies and activities that will meet carrer education objectives.	10 / 1.5789 (2)	40 / 2.0870 (1)	9 / 1.8571	4.414*
10 / 1.857	89	Provide career education experiences for students with various levels of ability.	19 / 1.8182	13.5 / 1.6809	28.5 / 2.0714	.639
11 / 1.860	75	Assist students in becoming aware of their interests, aptitudes and abilities.	32 / 2.1111	5 / 1.4681	22.5 / 2.0000	2.840
12 / 1.867	72	Assist students in applying learning to the work of work.	43 / 2.2778 (2)	9.5 / 1.5532 (1)	5.5 / 1.7692	3.530*
13 / 1.881	88	Infuse the career education concept into the traditional vocational program.	22 / 1.8750	27 / 1.9130	9 / 1.8571	.017
14 / 1.895	77	Prepare students to succeed in their various life roles.	38 / 2.1852	4 / 1.5532	34 / 1.9231	3.053
15 / 1.933	81	Provide experiences to make students aware of various occupations.	25 / 1.9821	16.5 / 1.7447	28.5 / 2.0714	.620
16 / 1.937	6	Assist in determining short-range career education program objectives.	17 / 1.7895	35 / 2.0213	22.5 / 2.0000	.792
17 / 1.942	13	Implement a career education inservice program.	1 / 1.3684 (2)	68 / 2.6000 (1,3)	9 / 1.8571 (2)	16.370***
18 / 1.946	1	Develop rationale for Career Education.	13 / 1.6607	41 / 2.1064	28.5 / 2.0714	2.756
19 / 1.963	87	Assist students in developing responsibility for their own career development.	26 / 2.0000	16.5 / 1.7447	36 / 2.1429	.864

* Significant at .05 level
** Significant at .01 level
*** Significant at .001 level

Table 8 (continued)

Rank Avg. Mean	Item	Competency	Rank/Mean/(Sig. Pairs) Career Ed. Director (1) N=56	Voc. Teachers (2) N=47	County Staff (3) N=14	F Ratio
20 / 1.992	14	Assist in evaluating the effectiveness of career education program.	12 / 1.6491 (2)	55 / 2.4043 (1)	14 / 1.9231	10.096***
21 / 2.007	9	Coordinate the vocational education program(s) with total career education goals.	34 / 2.1579	31 / 1.9362	17.5 / 1.9286	.599
22 / 2.007	74	Help students develop values that will benefit them personally.	37.5 / 2.2037	7 / 1.5106	52 / 2.3077	4.026
23 / 2.011	17	Evaluate potential career education resources and materials.	23 / 1.9123	42.5 / 2.1915	17.5 / 1.9286	1.027
24 / 2.017	79	Assist students in recognizing the social/economic benefits of careers.	45 / 2.2857	18 / 1.7660	22.5 / 2.0000	1.938
25 / 2.018	71	Motivate students to explore career opportunities.	43 / 2.7778 (2)	8 / 1.5217 (1)	38.5 / 2.1538	4.514*
26 / 2.031	82	Assist students in recognizing the educational requirements of various occupations.	29 / 2.0714	20.5 / 1.8085	41 / 2.2143	.805
27 / 2.062	54	Assist in preparing budget for career education program.	6 / 1.4909 (2)	70.5 / 2.6170 (1)	32 / 2.0769	11.425***
28 / 2.082	78	Provide exploratory experiences in various occupations.	37.5 / 2.2037	36 / 2.0426	22.5 / 2.0000	.251
29 / 2.105	21	Assist other teachers in organizing career education materials.	20 / 1.8393 (2)	70.5 / 2.6170 (1,3)	9 / 1.8571 (2)	7.725***
30 / 2.130	83	Assist students in understanding the relationship between one's career and lifestyle.	33 / 2.[illegible]0	34 / 1.9783	48.5 / 2.2857	.308
31 / 2.133	3	Assist in planning a career education program.	9 / 1.5614 (2,3)	66 / 2.5532 (1)	48.5 / 2.2857 (1)	12.750***
32 / 2.147	10	Assist in developing vertical articulation into a complete career education program.	16 / 1.7500 (2)	78 / 2.7674 (1,3)	14 / 1.9231 (2)	10.980***
33 / 2.158	85	Prepare students with employability skills to maintain and advance in the occupation.	40 / 2.2321	33 / 1.9574	48.5 / 2.2857	.617
34 / 2.162	37	Provide instruction for slower and more capable students.	58 / 2.5893 (2)	13.5 / 1.6809 (1)	41 / 2.2143	5.781**
35 / 2.170	80	Guide students through career education experiences.	56 / 2.5536	32 / 1.9565	22.5 / 2.0000	2.719
36 / 2.181	12	Conduct career education meetings, workshops, etc.	11 / 1.6316 (2)	73.5 / 2.6809 (1)	44 / 2.2308	11.315***
37 / 2.184	5	Assist in determining long-range career education program objectives.	21 / 1.8421 (2)	57 / 2.4255 (1)	48.5 / 2.2857	4.396*
38 / 2.191	52	Evaluate student performance in relation to career education objectives.	43 / 2.2778	38 / 2.0652	44 / 2.2308	.434
39 / 2.192	45	Illustrate with models and real objects.	65.5 / 2.6852 (2)	12 / 1.6596 (1)	44 / 2.2308	7.953***
40 / 2.199	84	Prepare students to enter an occupation or job.	57 / 2.4107	23 / 1.8298	54.5 / 2.3571	2.184

Table 8 (continued)

Rank / Avg. Mean	Item	Competency	Rank/Mean/(Sig. Pairs) Career Ed. Director (1) N=56	Voc. Teachers (2) N=47	County Staff (3) N=14	F Ratio
41 / 2.200	40	Demonstrate a concept or principle.	64 / 2.6667 (2)	25 / 1.8511 (1)	34 / 2.0833	5.941**
42 / 2.232	33	Direct students in applying problem-solving techniques.	69 / 2.7500 (2)	4 / 1.4468 (3,1)	60.5 / 2.5000 (2)	12.940***
43 / 2.234	73	Assist students in understanding the free enterprise system.	61 / 2.6110 (2)	19 / 1.7826 (1)	52 / 2.3077	4.252*
44 / 2.248	59	Assist occupational specialists and guidance counselors.	14 / 1.6727 (2,3)	64.5 / 2.5319 (1)	63.5 / 2.5385 (1)	10.719***
45 / 2.254	53	Supervise or administer the career education program.	8 / 1.5556 (2)	83.5 / 3.1304 (1)	32 / 2.0169	20.389***
46 / 2.256	68	Develop a career education library.	30 / 2.0741	70.5 / 2.6170	32 / 2.0769	2.328
47 / 2.259	62	Assist students in making career decisions based on facts.	51 / 2.4074	23 / 1.8298	63.5 / 2.5385	2.770
48 / 2.260	70	Make career placement opportunities available.	49 / 2.3396	42.5 / 2.1915	46 / 2.2500	.130
49 / 2.262	15	Assist in conducting a student follow-up study.	31 / 2.1053	73.5 / 2.6809	22.5 / 2.0000	3.645
50 / 2.262	24	Provide career education experiences for handicapped students.	41 / 2.2679	59 / 2.4468	28.5 / 2.0714	.506
51 / 2.318	60	Assist students in receiving career guidance services.	50 / 2.3519	37 / 2.0638	63.5 / 2.5385	.897
52 / 2.341	18	Use materials available in state (LOOM, VIEW, FAIS, PROCESS, etc.)	36 / 2.1930	58 / 2.4444	56 / 2.3846	.521
53 / 2.346	23	Provide career education experiences for disadvantaged students.	48 / 2.3214	67 / 2.5745	36 / 2.1429	.757
54 / 2.359	7	Develop career education model for entire district.	18 / 1.8070 (2)	89 / 3.4130 (1,3)	9 / 1.8571 (2)	23.075***
55 / 2.366	36	Employ reinforcement techniques.	74 / 2.9107 (2)	23 / 1.8298 (1)	54.5 / 2.3571	9.344***
56 / 2.370	32	Direct student laboratory experience.	76 / 2.9643 (2)	11 / 1.5745 (3,1)	67 / 2.5714 (2)	15.611***
57 / 2.383	2	Identify local manpower needs.	39 / 2.2105	61.5 / 2.5106	57.5 / 2.4286	.733
58 / 2.387	41	Direct individualized instruction.	78 / 3.0926 (2,3)	29 / 1.9149 (1)	38.5 / 2.1538 (1)	9.241***
59 / 2.425	4	Use a career education advisory committee.	46.5 / 2.3158	77 / 2.7447	41 / 2.2143	1.841
60 / 2.446	11	Involve students in planning/implementing career education program.	46.5 / 2.3158	63 / 2.5217	60.5 / 2.5000	.458
61 / 2.446	57	Write proposals for funding career education activities.	15 / 1.7455 (2)	83.5 / 3.1304 (1)	59 / 2.4615	12.549***

Table 8 (continued)

Rank Avg.Mean	Item	Competency	Rank/Mean/(Sig. Pairs) Career Ed. Director (1) N=56	Voc. Teachers (2) N=47	County Staff (3) N=14	F Ratio
62 / 2.452	19	Develop career education materials.	73 / 2.8947	49.5 / 2.3191	36 / 2.1429	2.966
63 / 2.463	43	Present information using a subject matter expert.	68 / 2.7407	52 / 2.3404	52 / 2.3077	1.477
64 / 2.478	67	Serve as occupational resource person for other teachers.	63 / 2.6604	81 / 2.8511	14 / 1.9231	2.021
65 / 2.504	27	Conduct group discussions.	55 / 2.5357	55 / 2.4043	67 / 2.5714	.185
66 / 2.512	26	Direct individual and group field trips.	62 / 2.6429	48 / 2.2766	70.5 / 2.6154	1.090
67 / 2.527	47	Present information with filmstrips and slides.	59 / 2.6000	44.5 / 2.2128	75 / 2.7692	1.872
68 / 2.534	38	Present information through an illustrated talk.	67 / 2.7321	39 / 2.0851	77 / 2.7857	3.679
69 / 2.545	61	Use individual and group career counseling techniques.	65.5 / 2.6852	51 / 2.3333	70.5 / 2.6154	.692
70 / 2.557	48	Present information with films.	57 / 2.5818	49.5 / 2.3191	75 / 2.7692	.906
71 / 2.566	39	Demonstrate a manipulative skill.	79 / 3.1667 (2)	29 / 1.9149 (1)	70.5 / 2.6154	10.109***
72 / 2.609	34	Direct the project method.	77 / 3.0545 (2)	29 / 1.9149 (3,1)	81.5 / 2.8571 (2)	10.064***
73 / 2.616	56	Assist in writing job descriptions of career education staff.	27 / 2.0364 (2)	86 / 3.1957 (1)	70.5 / 2.6154	9.934***
74 / 2.623	30	Employ the techniques of role-playing and simulation.	72 / 2.8929	55 / 2.4043	67 / 2.5714	1.464
75 / 2.677	8	Apply research to the career education program.	54 / 2.4737	82 / 3.1277	57.5 / 2.4286	4.395
76 / 2.699	46	Present information with overhead projector.	70 / 2.8182	61.5 / 2.5106	75 / 2.7692	.784
77 / 2.715	65	Hold a "Career Day" or other similar activities.	60 / 2.6038	70.5 / 2.6170	82 / 2.9231	.223
78 / 2.799	35	Employ oral questioning techniques.	82 / 3.2857 (2)	46 / 2.2553 (1)	81.5 / 2.8571	8.317***
79 / 2.818	29	Direct students in instructing other students.	84 / 3.3214 (2)	60 / 2.4894 (1)	73 / 2.6429	5.662**
80 / 2.832	58	Maintain student progress records.	86 / 3.3889 (2)	47 / 2.2609 (1)	78 / 2.8462	7.514***
81 / 2.834	44	Illustrate with bulletin boards.	80 / 3.2407	76 / 2.7234	63.5 / 2.5385	2.353
82 / 2.863	28	Stimulate learning through brainstorming and buzz group techniques.	71 / 2.8571	79 / 2.8043	84 / 2.9286	.059
83 / 2.904	42	Conduct team teaching.	85 / 3.3333 (2)	64.5 / 2.5319 (1)	78 / 2.8462	3.777*

Table 8 (continued)

Rank Avg. Mean	Item	Competency	Rank/Mean/(Sig. Pairs) Career Ed. Director (1) N=56	Voc. Teachers (2) N=47	County Staff (3) N=14	F Ratio
84 2.994	49	Present information with televised materials.	75 2.9623	85 3.1739	78 2.8462	.393
85 2.997	50	Direct programmed instruction.	81 3.2727	75 2.7174	85.5 3.0000	2.002
86 3.059	51	Present information with the chalkboard.	83 3.2909	80 2.8085	87 3.0769	1.623
87 3.089	31	Direct student study of texts and references.	87 3.4545 (2)	53 2.3830	89 3.4286	9.065***
88 3.344	66	Organize a student "career" club.	89 3.6481	88 3.3830	85.5 3.0000	.988
89 3.377	22	Develop bilingual career education materials when necessary.	88 3.5536	87 3.3617	88 3.2143	.357

* Significant at .05 level
** Significant at .01 level
*** Significant at .001 level

Table 9

Items Rated in Upper 25% in Two or More Groups Studied

Item	Groups[a]	Competency Statement
25	1,2,3	Use variety of community resources.
63	1,2,3	Maintain good community relations.
64	1,2,3	Maintain positive working relationship with other individuals, organizations.
86	1,3	Assist students in developing career decision-making skills
55	1,3	Manage resources such as time, money, materials, etc.
16	1,3	Identify strategies and activities that will meet career education objectives.
14	1,3	Assist in evaluating the effectiveness of career education program.
10	1,3	Assist in developing vertical articulation into a complete career education program.
6	1,3	Assist in determining short-range career education program objectives.
7	1,3	Develop career education model for entire district.
89	1,2	Provide career education experiences for students with various levels of ability.
21	1,3	Assist other teachers in organizing career education materials.
88	1,3	Infuse the career education concept into the traditional vocational program.
76	2,3	Assist students in developing positive attitudes toward work.
69	2,3	Use cooperative and other "hands-on" experiences.
75	2,3	Assist students in becoming aware of their interests, aptitudes and abilities.
72	2,3	Assist students in applying learning to the world of work.
77	2,3	Prepare students to succeed in their various life roles.
79	2,3	Assist students in recognizing the social/economic benefits of careers.

[a] 1 = County Directors
2 = Vocational Teachers
3 = County Staff

Table 9 lists those competency statements that were rated in the 25 percent most important for all three groups of career education directors, vocational teachers, and county staff. Nineteen items were rated in the upper 25 percent for two or three groups.

A t-test was utilized to determine mean differences in ratings given by career education directors and vocational education teachers for competencies. Table 10 lists those 36 items receiving significantly different mean importance ratings. Significantly higher mean differences ($P < .05$) were obtained for 23 items for the career education directors. These items deal primarily with the management and other administrative tasks of the career education program. The vocational education teachers rated 13 items significantly higher ($P < .05$) than did career education directors. These 13 items are primarily related to teaching techniques.

Open-Ended Responses

In addition to the competency statements on the instrument, there were several blank spaces in which respondents added competencies they felt were important. Appendix F lists these open-ended responses added by coordinators, teachers, career education directors, and county staff personnel.

Table 10

Competencies Rated Significantly Different By
County Career Education Directors and Vocational Teachers

Item	Competency Statement	Mean: County Career Ed. Directors	Mean: Vocational Teachers	t	df
32	Direct student laboratory experience.	2.9643	1.5745	5.56***	99
33	Direct students in applying problem-solving techniques.	2.7500	1.4458	5.04***	99
36	Employ reinforcement techniques.	2.9107	1.8298	4.76***	99
69	Use cooperative and other "hands-on" experiences.	2.4444	1.3617	4.69***	97
39	Demonstrate a manipulative skill.	3.1667	1.9149	4.42***	97
34	Direct the project method.	3.0545	1.9149	4.38***	98
35	Employ oral questioning techniques.	3.0926	1.9149	4.00***	99
41	Direct individualized instruction.	3.0926	1.9149	4.00***	97
45	Illustrate with models and real objects.	2.6852	1.6596	3.87***	97
37	Provide instruction for slower and more capable students.	2.5893	1.6809	3.40***	99
40	Demonstrate a concept or principle.	2.6667	1.8511	3.40***	97
29	Direct students in instructing other students.	3.3214	2.4894	3.13**	99
71	Motivate students to explore career opportunities.	2.2778	1.5217	2.92**	96
73	Assist students in understanding the free enterprise system.	2.6111	1.7826	2.85**	96
76	Assist students in developing positive attitudes toward work.	2.0370	1.3191	2.85**	97
72	Assist students in applying learning to the world of work.	2.2778	1.5532	2.81**	96
74	Help students develop values that will benefit them personally.	2.2037	1.5106	2.59*	97
77	Prepare students to succeed in their various life roles.	2.1852	1.5532	2.42*	97
38	Present information through an illustrated talk.	2.7321	2.0851	2.35*	99
80	Guide students through career education experiences.	2.5536	1.9565	2.31*	98
75	Assist students in becoming aware of their interests, aptitudes and abilities.	2.1111	1.4681	2.15*	97
84	Prepare students to enter an occupation or job.	2.4107	1.8298	2.11*	99
62	Assist students in making career decisions based on facts.	2.4074	1.8298	2.02*	97
1	Develop rationale for Career Education.	1.6607	2.1064	-2.39*	99
8	Apply research to the career education program.	2.4737	3.1277	-2.83**	100
55	Manage resources such as time, money, materials, etc.	1.5273	2.2128	-2.99**	98
21	Assist other teachers in organizing career education materials.	1.8393	2.6170	-3.85***	99

* Significant at .05 Level
** Significant at .01 Level
*** Significant at .001 Level

Table 10 (continued)

Competencies Rated Significantly Different By
County Career Education Directors and Vocational Teachers

Item	Competency Statement	Mean: County Career Ed. Directors	Mean: Vocational Teachers	t	df
10	Assist in developing vertical articulation into a complete career ed. program.	1.7500	2.7674	-3.93***	95
54	Assist in preparing budget for career education program.	1.4909	2.6170	-4.16***	98
56	Assist in writing job descriptions of career education staff.	2.0364	3.1957	-4.22***	96
12	Conduct career education meetings, workshops, etc.	2.0354	3.1957	-4.37***	100
3	Assist in planning a career education program.	1.5614	2.5532	-4.68***	100
57	Write proposals for funding career education activities.	1.7455	3.1304	-4.81***	97
13	Implement a career education inservice program.	1.3684	2.6000	-5.04***	98
53	Supervise or administer the career education program.	1.5556	3.1304	-5.80***	96
7	Develop career education model for entire district.	1.8070	3.4130	-6.27***	99

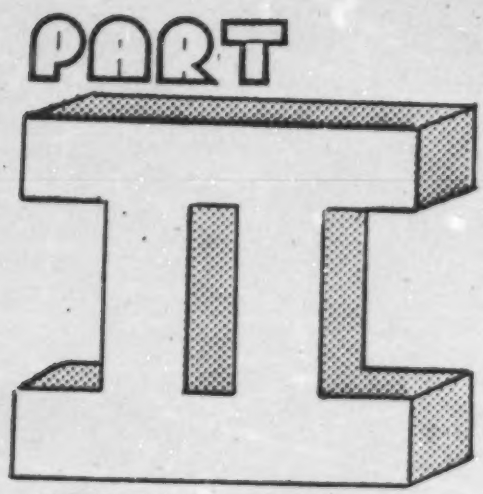
* Significant at .05 Level
** Significant at .01 Level
*** Significant at .001 Level

CHAPTER 5

CONCLUSIONS

Based on the analysis of data from returned instruments, several conclusions may be drawn. It appears as if there are a large number of professional competencies that are important to career education personnel in vocational education programs in Florida. Of the 89 competency statements included on the survey instrument, all of them had an average importance rating lower than the midpoint (3.500) on the 6 point rating scale. It could be concluded that career education personnel in vocational education programs are called upon to execute many tasks in the performance of their professional responsibilities. It appears as if the preliminary competencies were screened very well by the jury and that most unimportant items were deleted before the survey instrument was prepared in final form.

A second conclusion that may be drawn is that competencies important to career education personnel do not vary greatly according to the type of career education position held. Of the 89 competencies, some 36 were rated significantly different at the .05 level or better among the subgroups of career education personnel and vocational teachers. It appears as if a majority of the professional competencies on the instrument are generic competencies for all career education personnel and vocational teachers.



CAREER EDUCATION COMPONENT–
Criteria Identification

CHAPTER 6

METHODOLOGY FOR IDENTIFYING CRITERIA

Need

In order to fully implement a competency-based program, a means of assessing competency mastery should be developed. Among the elements of a CBTE program identified by Elam (1971) is the use of assessment criteria which (1) are based upon specified competencies, (2) state expected levels of mastery under specified conditions, and (3) are made public in advance. Assessment criteria may allow objective assessment of competency mastery based primarily on the performance of the trainee.

Dodl and Schalock (1973) stated that the criteria for "...assessing what a prospective teacher can do (performance) should be as rigorous, as systematically derived, and as explicitly stated as the criteria for assessing either what he knows (knowledge) or what he can achieve in learners." The authors added that traditional teacher education programs have relied heavily on knowledge criteria but that performance criteria will constitute a major force for innovation in education during the next decade.

Purpose

The purpose of this phase of the project was to develop objective, specific assessment criteria for those competencies that were rated important by Florida's career education personnel and vocational teachers. These criteria may then be used by evaluators to objectively assess whether individuals have mastered these competencies. Such criteria might be useful for preservice assessment of certain competencies in a university-based program or for inservice assessment for staff development, needs assessment, promotion and similar uses. The project staff developed several parameters for assessment criteria that would be developed. These parameters, it was felt, would help to operationalize the competency-based program by taking much of the subjectivity out of assessment. These parameters for assessment criteria should:

1. Include all key elements of the competency.
2. Be based entirely on the competency itself.
3. Be stated in past tense.

4. Require only a "yes" or "no" response.

5. Be as objective as possible.

Validation by Jury

Competencies receiving an average importance rating for all three groups of career education personnel and vocational teachers of 3.500 (midpoint) or less on the 6 point rating scale were considered important by the project staff for career education personnel in vocational programs in Florida. The next step in the project was to develop assessment criteria for evaluating mastery of these competencies.

The project staff developed preliminary assessment criteria for the 89 competencies which were considered to be important. Criteria statements were developed using the parameters discussed earlier. A jury was used to review these criteria statements and make revisions, additions, and deletions. A letter (see Appendix G) was sent to potential jury members asking them to serve. Individuals agreeing to review the preliminary criteria statements were sent a follow-up letter (see Appendix H) and a packet of materials explaining the desired criteria statements in more detail (see Appendix I). The following individuals served as jury members to review the preliminary assessment criteria for the career education component:

1. Ms. Elizabeth Cunningham, Director of Career Education, Leon County Schools, Tallahassee, Florida

2. Ms. C. W. Howell, Retired Educator and Consultant for Career Education, Tallahassee, Florida

3. Dr. Romeo Massey, Center for Career Education, Tallahassee, Florida.

4. Dr. Margaret Ferqueron, Director for Career Education, Florida Department of Education

5. Ms. Andryea Barrett, Director of Career Education, Wakulla County Schools, Crawfordville, Florida

6. Mr. James Diamond, Director of Career Education, Gadsden County Schools, Quincy, Florida.

CHAPTER 7

FINDINGS - CRITERIA

Based on the comments made by jury members, the preliminary assessment criteria were revised. Jury members were encouraged to add, delete or alter criteria statements based on their suitability for objective evaluation of competencies. Table 11 lists the revised criteria statements for the 89 competency statements that received a mean importance rating of 3.500 (midpoint) or less on the 6 point rating scale.

The competency statements in Table 11 have been grouped by the project staff into the following categories:

A. Program planning, development and evaluation

B. Instructional planning

C. Teaching methods-media

D. Student evaluation

E. Management

F. Guidance

G. School-community and student relations

H. Instructor's professional role and development

I. Unique competencies.

This categorization is tentative only and is based solely upon the judgement of the project staff. Grouping of the competencies for use in a preservice or inservice program can be accomplished based on the unique needs of participants and the objectives of the particular program.

It is recommended that the assessment criteria listed in Table 11 be reviewed and revised where necessary to fit the unique needs of particular preservice or inservice programs designed to prepare or upgrade career education personnel and vocational teachers of vocational programs in Florida.

47

Table 11

Assessment Criteria for Competencies

Category A: Program Planning, Development and Evaluation

1. Develop rationale for Career Education.

   a. Justification for career education was determined from specific inquiries from interested individuals, teachers, and administrators.
   b. The needs assessment identified problems relating to career education.

2. Identify local manpower needs.

   a. An employer survey was conducted.
   b. A study was conducted to determine trends.
   c. A job vacancy/matrix was prepared.
   d. Labor and management were consulted.
   e. Advisory committees were utilized.

3. Assist in planning a career education program.

   a. State and national career education workshops and conferences were attended.
   b. Teacher advised county directors of their material and supply needs to implement career education.
   c. Input for career education was passed on to responsible decision makers.

4. Use a career education advisory committee.

   a. Invitations were sent to qualified persons to serve on the committee.
   b. A chairperson was selected.
   c. Objectives of the advisory committee were developed.
   d. The advisory committee helped in planning the total program, in evaluation, and in long-range planning for improvement.
   e. Meetings were called only as needed; were well planned with clearly defined tasks and objectives.

5. Assist in determining long-range career education program objectives.

   a. The advisory committee was consulted.
   b. Meetings were held with Department of Education, administrators, guidance counselors, and other teachers, parents, businessmen and students.
   c. Future equipment needs were included.
   d. Supply needs were included.
   e. Faculty needs were projected.
   f. The need for additional facilities was included.
   g. Objectives were formalized.
   h. Objectives were critiqued by appropriate Department of Education personnel.
   i. A draft of long-range program plans was submitted.

6. Assist in determining short-range career education program objectives.

   a. Existing objectives as outlined by the State Department of Education and the local administration were reviewed.
   b. Teacher input was solicited.
   c. The advisory committee was involved.
   d. Objectives for the first year planning phase of the project were identified, based on employment needs.
   e. Target dates were established.

7. Develop career education model for entire district.

   a. Literature and available projects and models were explored.
   b. Information, resource materials, district curriculum and career guidance guidelines were collected and prepared.
   c. A planning workshop was conducted.
   d. Career education long-range objectives were reviewed relative to district goals.
   e. An articulated scope and sequence of elements was developed as a tentative model.
   f. Support and input were requested.
   g. Community resources were developed.
   h. A placement and follow-up procedure were instituted.

8. Apply research to the career education program.

   a. An approach to obtain cooperation of other teachers and administrators was determined.
   b. The career education concept was explained and promoted to every teacher and the concept was talked about at every opportunity to gain teacher acceptance.

Table 11 (continued)

Category A: Program Planning, Development and Evaluation (continued)

c. Assignment of task with responsibility was given to all teachers in the vocational program.
d. Funding to achieve infusions (hands-on support services, etc.) was requested from the superintendent.
e. Evaluation criteria were established.
f. Appropriate inservice activities were carried out.

9. Coordinate the vocational education program(s) with total career education goals.

a. Career education elements were infused within the existing vocational education curricula.
b. Vocational teachers met on a regular basis with the director of career education and staff members.
c. An on-going inservice program was conducted to update vocational education teachers with career education concepts.
d. Academic teachers were invited to participate with vocational education instructors in an inservice workshop in order to update career education and academics of vocational education.

10. Assist in developing vertical articulation into a complete career education program.

a. County and statewide meetings were held to decide on what was to be accomplished at each grade level.
b. Specific recommendations were made from time to time to improve articulation.
c. Accomplishments were then evaluated yearly.

11. Involve students in planning/implementing career education program.

a. Students were given an opportunity to survey their interest in the areas of occupational interests.
b. Student related activities were developed at the request of students, centering around selected occupational interests.
c. Students participated in selecting resource person.
d. Students and parents were involved in the presentation and organization of resource persons and field trips.

12. Conduct career education meetings, workshops, etc.

a. Orientation and curriculum workshops were planned and implemented for all administrative as well as teaching staffs.
b. From introduction workshops, specific teachers were selected to be key resource teachers within each school in the county.
c. One to one inservice aid to teachers was provided by career education staff.
d. Various materials related to career education were distributed.
e. Teachers and administrators were continuously reminded of the importance of career education.
f. Career education consultants were utilized to keep participants abreast of current trends in curriculum change.

13. Implement a career education inservice program.

a. A needs assessment was conducted.
b. Goals for workshop, based on needs assessment, were written.
c. Objectives based on goals were written.
d. Inservice workshops were held regularly for staff and school personnel who would be implementing career education.
e. These workshops were carefully planned to cover resource materials, activities, and evaluation techniques to be used.
f. Available resources were brought in for these workshops.
g. The success of the workshops was evaluated.

14. Assist in evaluating the effectiveness of career education.

a. In the initial planning stages, an external evaluator was employed to assist in formulating program evaluation procedures.
b. Teachers and counselors submitted periodic reports of activities to provide feedback on the progress of the program.
c. Interviews were conducted with students, teachers, administrators, business leaders and parents to ascertain attitudes toward effectiveness of program.
d. Career education staff kept all pertinent data required by external evaluator for final evaluation report.
e. External evaluator prepared report for career education staff.
f. Career education staff utilized report for further program development and improvement.

Table 11 (continued)

Category A: Program Planning, Development and Evaluation (continued)

15. Assist in conducting a student follow-up study.

a. Goals and objectives were stated for follow-up study.
b. The target population was identified.
c. Activities, timelines, and responsibilities were assigned.
d. The information desired was identified and questions which elicited this information were placed in a survey instrument.
e. After an item analysis of the follow-up instrument information, a summary report was made to appropriate personnel.
f. After dissemination of the summary report to personnel, recommendations for needed curriculum changes based on the findings from the survey were made.

16. Identify strategies and activities that will meet career education objectives.

a. The career education objectives were clearly established.
b. Strategies were specifically designed to meet each objective.
c. Strategies contained specific methods for monitoring career education objectives.
d. Records on student performance were maintained.
e. Information obtained through student evaluation was used to adjust objectives.

54. Assist in preparing budget for career education program.

a. Program needs were determined.
b. Projected program expansion needs were determined.
c. Applicable laws were reviewed to assure compliance.
d. Format and deadline dates were followed.
e. Amount of possible allocated funds was determined.
f. Priorities were established.
g. Appropriate budget request forms were completed and submitted.
h. Necessary changes were made and a revised budget submitted.

56. Assist in writing job descriptions of career education staff.

a. Consideration was given to utilization of all personnel within the system to promote the career education concept.
b. The job was analyzed and broken down into component parts.
c. The parts were organized into chronological order for the school year.
d. Each part was described.

57. Write proposals for funding career education activities.

a. Sources of funding and guidelines/procedures for writing proposals have been reviewed.
b. Information upon which to develop proposals has been gathered, including:
   i. needs assessment
   ii. search of literature
   iii. review of existing projects
   iv. interviews with available career education practitioners.
c. Rationale, goals and objectives of project have been developed.
d. Career education staff required to conduct project was identified.
e. Budget required to conduct project was prepared.
f. Evaluation procedures were identified.
g. Pilot schools were identified and total commitment was assured.

88. Infuse the career education concept into the traditional vocational program.

a. Program planning and development workshops were held.
b. Scope and sequence for each phase of career education was developed.
c. Implementation workshops by grade levels and subject areas were held.
d. Selected activities and materials were infused into classroom teaching.
e. Periodic reports of implemented activities were submitted to career education staff.

Category B: Instructional Planning

17. Evaluate potential career education resources and materials.

a. Conducted needs assessment of students.
b. Goals, based on needs, were stated.
c. Objectives, based on goals, were stated.
d. Criteria for instructional materials based upon goals were stated.
e. Resource search, including Career Education Consortium (CEC) and workshops was conducted.

Table 11 (continued)

Category B: Instructional Planning (continued)

f. Available resources with objectives and criteria were matched.
g. County personnel selected resources and materials deemed most appropriate.

18. Use materials available in state (LOOM, VIEW, FAIS, PROCESS, etc.).

a. State materials were secured for review.
b. Appropriate materials were placed in the curriculum.
c. Inservice training activities were provided for personnel desiring to utilize state materials.

19. Develop career education materials.

a. A systems model was applied to the development of materials.
b. Gaining Realities of Work (GROW) techniques for developing career education were utilized.
c. The model designed for infusing career education into existing curricula demonstrated by Mr. Robert Jervis from Ann Arundel County, Maryland, was utilized in inservice meetings.

20. Use services of other professionals to support career education program.

a. Professionals from occupations were brought in to visit classes and share ideas with students.
b. Ideas were collected from other professionals through articles, books, and meetings.

21. Assist other teachers in organizing career education materials.

a. Objectives and concepts relating to real life were considered.
b. Occupation clusters were included, in which students become aware of the need for math, social studies, English, science, etc., for the occupations in the cluster, in cooperation with other teachers.
c. Resources were shared with other teachers.
d. An articulated set of learning experiences were developed.
e. An inservice manual for the district was developed.
f. Evaluation procedures and instruments were agreed on.
g. Priorities were established.

22. Develop bilingual career education materials when necessary.

a. A survey of bilingual groups was conducted as a needs assessment.
b. Language personnel were employed to translate bilingual materials.
c. Unfamiliar materials were gradually brought into use.
d. Students were exposed to only written and reading materials with a vocabulary of their level.
e. English was considered as another language.

23. Provide career education experiences for disadvantaged students.

a. Students were provided concept building materials on career education.
b. A work-study program was utilized.
c. Students were presented resource materials indicating successful occupational adaptability by former disadvantaged people.
d. Students were presented opportunities in which they could be successful and were rewarded for successes.
e. Students were made aware of (1) occupational roles within their capabilities, and (2) occupational roles which could provide them with resources.
f. Various non-reading strategies were utilized in helping students become aware of the world of work.

24. Provide career education experiences for handicapped students.

a. Goals and objectives were stated.
b. Advice was sought from former handicapped students.
c. Literature was searched for ways of providing experiences for handicapped.
d. Employers were encouraged to allow the handicapped the same exposure to their business as non-handicapped individuals.

25. Use variety of community resources.

a. A community resource bank was placed in the media center.
b. Resource personnel were scheduled.
c. Advisory committees were utilized.
d. Community organizations were utilized.

Table 11 (continued)

Category B: Instructional Planning (continued)

89. Provide career education experiences for students with various levels of ability.

a. Curriculum materials emphasizing career education concepts were provided for students with varying levels of abilities.
b. Supplementing curriculum materials, community excursions, guest speakers, and individual research techniques were utilized in the teaching process.

Category C: Teaching Methods-Media*

26. Direct individual and group field trips.

a. Students were involved in planning the learning outcomes of the field trip.
b. The field trip was developed in cooperation with the agency to be visited.
c. Students were given an orientation before the field trip.
d. Students were involved in evaluating the field trip.
e. Students were involved in summarizing the key concepts of the field trip.

27. Conduct group discussions.

a. Discussion guidelines were established cooperatively with the students.
b. The topic to be discussed was introduced in a stimulating manner.
c. The discussion was maintained by interjecting questions, recognizing non-verbal cues, providing direction when needed, using internal summaries, and seeking a balance of participation.
d. A summary of the important points was given in closing the discussion session.

28. Stimulate learning through brainstorming and buzz group techniques.

Brainstorming
a. The purpose and procedures of the brainstorming session were explained.
b. A leader and recorder were selected for each group of 10-12 students.
c. A topic for the brainstorming session was selected and presented.
d. Wild, daring, and even improbable ideas were invited and welcomed.
e. A large quantity of ideas was obtained and recorded on the selected topic.
f. Another session was planned to appraise the quality of the ideas.

Buzz Group
a. The class was divided into small groups.
b. The problem for discussion was presented.
c. A short time limit was established for the buzz group.
d. Each buzz group selected a leader and recorder.
e. At the close of the established time limit, each group reported to the entire class.

29. Direct students in instructing other students.

a. The desirability of utilizing students to instruct others was determined for each situation.
b. The more capable students were directed in instructing slower students.
c. Students who had progressed beyond the group instructed those who needed help with assignments.
d. The teacher developed definite plans for the instruction with the student who would do the instructing.

30. Employ the techniques of role-playing and simulation.

Role-Playing
a. The role-playing was directly related to the student performance objectives.
b. The teacher either presented the role-playing situation himself or student volunteers were used as participants.
c. The props provided facilitated the role-playing situation.
d. The teacher monitored the role-playing situation to best meet student performance objectives.
e. The main ideas presented in the role-playing situation were summarized and evaluated through group discussion.

Simulation
a. The simulation technique was used as an aid in meeting student performance objectives.

*Assessment criteria for this category adapted from Performance-Based Vocational Teacher Education Modules developed by Center for Vocational Education, Ohio State University, Columbus, Ohio.

52

Table 11 (continued)

Category C: Teaching Methods-Media* (continued)

b. Resources were obtained for the simulation experience.
c. Students were oriented to the simulation technique.
d. The specific simulation experience was introduced to the students.
e. Students were given assistance in carrying out the simulation experience.
f. The major concepts to be learned from the simulation experience were summarized.
g. Students were involved in evaluating the simulation experience.

31. Direct student study of texts and references.

a. The resource materials selected were suited to the student's ability level.
b. Students were guided in selecting pertinent information from resource materials.
c. Students were guided in adapting their reading technique to the material read.
d. Students were aided in evaluating their reading material and keeping an accurate record of important information obtained and resources used.

32. Direct student laboratory experience.

a. The laboratory lesson was based on individual student needs.
b. Time was allowed for student discussion of the laboratory lesson.
c. Individual student progress and skills were evaluated.

33. Direct students in applying problem-solving techniques.

a. The student was guided in identifying the problem.
b. The student was aided in defining and delimiting the problem.
c. The student was helped in gathering evidence to solve the problem.
d. The student was aided in formulating and testing possible solutions for the problem.

34. Direct the project method.

a. The teacher assisted the student in selecting a project that would help him attain a definite goal.
b. The availability and cost of equipment and materials as well as the time required were considered in the selection of the project.
c. Resources and instructional materials were suggested as guides for the student.
d. Students were instructed in keeping a record of their progress.
e. Evaluation of the project was continuous, so the student and the teacher were aware of the student's progress toward project goals.

35. Employ oral questioning techniques.

a. Oral questions were used to stress important points, to encourage contributions from the students' own experience, to check errors in thinking, and to direct thinking of students.
b. Questions were directed to the entire class before calling upon an individual for a response.
c. Students were given an opportunity to think about the question and to formulate an answer.
d. Each student was given an opportunity to participate, based on his ability and past experience.
e. Questions were presented in logical sequence.
f. Questions requiring only a "yes" or "no" answer were used sparingly.
g. The teacher repeated the student's answer only if there was a need for special emphasis or clarity.
h. The questions used were concise and included only one idea.
i. Attention and consideration were given to each student's response.
j. Various types of simple recall and thought level questions were employed in the lesson.

36. Employ reinforcement techniques.

a. The teacher studied the specific student performance objectives to determine the reinforcement techniques to use.
b. Students' individual needs were considered in the selection of techniques of reinforcement.
c. The teacher used such techniques as the following to reinforce learning: audio and videotape recording feedback, summaries and reviews, programmed materials, individual and group assignments, emphasis by repetition (e.g., drills), and recognition of positive behavior.

*Assessment criteria for this category adapted from Performance-Based Vocational Teacher Education Modules developed by Center for Vocational Education, Ohio State University, Columbus, Ohio.

Category C: Teaching Methods-Media* (continued)

37. Provide instruction for slower and more capable students.

    a. The specific problems of the slow learner were diagnosed.
    b. Individualized instruction was provided for the slow learner to meet his specific needs.
    c. Resource materials on the student's comprehension level were provided.
    d. Realistic and meaningful learning experiences were provided for the slow learner.
    e. Additional or in-depth study opportunities were provided for the more capable students.
    f. Advanced assignments were given the more capable students.
    g. A reward system was established for the more capable student's additional or in-depth studies.

38. Present information through an illustrated talk.

    a. An introduction covering the purpose of the talk was presented.
    b. Students' ability level determined what and how information was presented.
    c. Instructional media and aids were selected for the illustrated talk and used to complement, clarify, and add perspective to the lesson.
    d. Student feedback directed the course of the lesson and the use of the instructional media and aids.
    e. Key points of the illustrated talk were summarized during closure.

39. Demonstrate a manipulative skill.

    a. All equipment, tools and materials were ready for use.
    b. The demonstration was directed to the students and student cues were utilized to make the demonstration effective.
    c. Each step of the demonstration was identified, explained, and performed in proper sequence.
    d. The demonstration was easily seen by the students.
    e. Instructional media and aids were used to clarify any step that could not be clearly demonstrated.
    f. The method commonly used in the field for performing the task was demonstrated.
    g. Critical safety points of operation were listed for the student.
    h. The demonstration was performed under actual or simulated working conditions.
    i. Procedural steps of the operation were summarized.
    j. Feedback was solicited from students to evaluate their understanding of the demonstration.

40. Demonstrate a concept or principle.

    a. The demonstration illustrated the proper use of equipment, tools, and materials.
    b. The demonstration was set up so it could be easily viewed by each student.
    c. The teacher demonstrated and explained the new concept or principle in relation to previous instruction.
    d. Each step of the demonstration was related to the concept or principle being presented.
    e. Instructional media and aids were planned to illustrate steps that could not be demonstrated clearly.
    f. The teacher reviewed the steps at the conclusion of the demonstration.
    g. The teacher solicited feedback from the students to evaluate their understanding of the concept or principle presented.
    h. The teacher requested the students to analyze a new situation in relation to the concept or principle.

41. Direct individualized instruction.

    a. The instruction was based on the individual needs of the student.
    b. Resources and instructional materials were suggested and the student was guided in their use.
    c. Assignments were reviewed with the student and questions were answered.
    d. The student was guided in determining the key points of information in the assignment.
    e. Evaluation was continuous so the student would be able to assess his progress.

42. Conduct team teaching.

    a. Plans were made cooperatively by members of the teaching team.
    b. Large-group instruction was used to set the stage for the learning process.
    c. Small seminar-type classes were used for more individualized instruction.
    d. Independent study provided the setting for the student to explore in-depth subject matter of special interest to him.

*Assessment criteria for this category adapted from Performance-Based Vocational Teacher Education Modules developed by Center for Vocational Education, Ohio State University, Columbus, Ohio.

Table 11 (continued)

Category C: Teaching Methods-Media* (continued)

43. Present information using a subject matter expert.

a. The subject matter expert was oriented to the purpose of the lesson, special needs or interests of the class, his role in the lesson, and time allotments.
b. The specific purpose of the subject matter expert's presentation was explained in the introduction.
c. The subject matter expert presented special information and answered questions relating to his area of specialization.
d. After subject matter expert's presentation, the teacher involved students in reviewing and evaluating the information.
e. The subject matter expert was made aware of the backgrounds and ability levels of the students.

44. Illustrate with bulletin boards.

a. The bulletin board was used to display educational information relating to student performance objectives.
b. Display materials were selected for such purposes as motivation, clarification of information, stimulation of thought, presentation of a concept, initiation of class discussion, and reinforcement of learning.
c. Students were involved in planning and developing the bulletin board.

45. Illustrate with models and real objects.

a. The decision was made whether the real object or a model would be more suitable for the instructional purpose.
b. The models or real objects were used to meet student performance objectives.
c. The model accurately represented the real object.
d. The models provided interior views which are normally invisible with non-essentials removed so that fundamentals could be observed more easily.
e. Specific features in the models were accented through the use of color, texture, and moving parts.

46. Present information with overhead projector.

a. The overhead projector was used to present information that would aid in the clarification of the lesson.
b. The manufacturer's guidelines were followed in setting up the projector.
c. Materials selected were at the students' comprehension level.
d. The illustrations were integrated and sequenced into the lesson.
e. A variety of projection techniques was used.
f. All students were able to see and read the projected materials.

47. Present information with filmstrips and slides.

Filmstrips

a. The filmstrip was secured, previewed, and evaluated on the basis of student performance objectives.
b. Seating was arranged so everyone could see and hear the filmstrip presentation.
c. The equipment was secured according to school procedures, set up, and checked in advance of the presentation.
d. An introduction which included the purposes of the lesson was given prior to showing the filmstrip.
e. The filmstrip was integrated into the presentation of the lesson.
f. Students were guided in summarizing the major concepts of the filmstrip.

Slides

a. The slides were secured, previewed, and evaluated on the basis of student performance objectives.
b. The equipment was secured according to school procedures, set up, and checked in advance of the presentation.
c. The physical facilities were arranged for optimum viewing.
d. An introduction was made to prepare students for the slide viewing.
e. After the viewing, a summary emphasized key points and clarified misunderstandings.

48. Present information with films.

a. The film was secured, previewed, and evaluated on the basis of student performance objectives.
b. The film was suitable in length for the lesson and class period.
c. The equipment was secured according to school procedures, set up, and checked in advance of the presentation.

*Assessment criteria for this category adapted from Performance-Based Vocational Teacher Education Modules developed by Center for Vocational Education, Ohio State University, Columbus, Ohio.

55

Table 11 (continued)

Category C: Teaching Methods-Media* (continued)

d. The screen was arranged so that all students could see.
e. Purposes were presented in an introduction to the film.
f. Efficient operation of equipment provided a good learning situation by considering items such as focus and volume.
g. A group discussion for summary and evaluation was conducted after the film presentation.

49. Present information with televised materials.

a. The advance schedules and resumés of television programs were analyzed to determine if the program would aid in meeting student performance objectives.
b. An introduction was given for the television program to prepare the students for viewing.
c. Group discussion was conducted following the viewing of the television program to emphasize major points and clarify any misunderstandings.

50. Direct programmed instruction.

a. The programs were selected to meet the needs and interests of the students.
b. Students were given guidance in understanding directions and procedures to follow in using the materials.
c. The teacher checked student progress and assisted with any difficulty.

51. Present information with the chalkboard.

a. The chalkboard material aided in achieving the student performance objectives.
b. Detailed illustrations were put on the board before class and concealed from students until they were introduced in the lesson.
c. Complex illustrations were clear and legible and were shown in a step-by-step manner.
d. All students were able to see the illustrations and read the writing.
e. The teacher maintained eye contact with the students while using the chalkboard.
f. Students were involved in utilizing the information on the chalkboard in summarizing the lesson.

Category D: Student Evaluation

52. Evaluate student performance in relation to career education objectives.

a. Evaluation procedures were built into each career education project.
b. Instruments were designed, developed and implemented to measure the student's group of career education.
c. The relationship between school course performance and areas needed for occupational goals of students were discussed with them.
d. Records were kept for analytical purposes on students' decisions to enter occupations.
e. Adjustments were made in the program to increase its effectiveness based upon student evaluations.

58. Maintain student progress records.

a. Terminal student performance objectives were included on progress chart.
b. Progress chart was displayed and kept accurate and up to date.
c. Methods of recording indicated for each individual the date of mastery for each objective.

Category E: Management

53. Supervise or administer the career education program.

a. Job descriptions were determined and written.
b. Weekly conferences with para-professionals (or teacher's aides) were scheduled relating to activities.
c. Recommendations of the career education director were followed.

55. Manage resources such as time, money, materials, etc.

a. All responsibilities were placed on a calendar.
b. Contact was made with county finance officer to clarify responsibility for operating and managing budget.
c. A monthly review of the budget was carried out.

*Assessment criteria for this category adapted from Performance-Based Vocational Teacher Education Modules developed by Center for Vocational Education, Ohio State University, Columbus, Ohio.

Category E: Management (continued)

d. A time line was utilized to plan the academic year.
e. Responsibility for materials was assigned.
f. An inventory was kept, complete with records of what each teacher used.
g. Financial records were maintained.
h. Equipment lists were kept current.

Category F: Guidance

60. Assist students in receiving career guidance services.

a. The Dictionary of Occupational Titles was used.
b. Employment benefits were discussed.
c. Information on families of occupations, or occupational clusters was provided.
d. Youth Employment counseling services were provided.
e. Movies, filmstrips, slides and tapes were provided for specific interest of individuals and small groups.
f. Career Day (night) was observed.
g. Work experience programs were provided.
h. Field trips were conducted.
i. Counseling regarding past and present employment experiences was utilized.
j. Students received occupational information from Florida-View.

61. Use individual and group career counseling techniques.

a. Students were counseled on career decisions in groups according to expressed interests.
b. Students were counseled individually when needed.
c. Students were given career aptitude tests to determine their skills and career interests.
d. Vital information for education and work (view) materials was provided.
e. Students were counseled in presence of parents.

62. Assist students in making career decisions based on facts.

a. Student interests were determined by tests.
b. Student abilities were determined by tests.
c. Career possibilities within the geographical areas in which the students lives/intends to live were determined.
d. The teacher or counselor assisted the students in matching the above facts in making career choices.
e. Shadow experiences were provided.
f. Field trips were conducted.

Category G: School-Community and Student Relations

63. Maintain good community relations.

a. An advisory committee was maintained.
b. Presentations on career education were presented in community meetings.
c. The community was informed regularly about career education.
d. Civic activities were attended by teachers.
e. A parent/school organization PTA was utilized.
f. A directory of community resource persons was maintained.
g. A career education open house day was conducted.

64. Maintain positive working relationship with other individuals, organizations.

a. Goals, objectives and procedures were developed for this competency.
b. Efforts to achieve a working relationship between the school and community were implemented.
c. Interested individuals and community organizations were encouraged to involve themselves in school affairs.
d. Liaison person(s) were appointed to monitor school-community relations.

65. Hold a "Career Day" or other similar activities.

a. The value of a "Career Day" was discussed.
b. Goals and objectives for "Career Day" were stated.
c. A list of activities was prepared.
d. Resources in school and community were compiled by volunteer students, teachers, and counselors.
e. Resource persons were invited to participate.
f. Students participated in various activities.

57

Category G: School-Community and Student Relations (continued)

g. Promotion activities for a "Career Day" were developed.
h. Career Day was held.
i. Instruments were developed for resource person's evaluation of Career Day.
j. Instruments were developed for student evaluation of career day.

66. Organize a student "career" club.

a. Students were involved in organizing career club.
b. Activities were aimed at increasing students' career awareness and decision making skills.
c. Local resource persons were involved in career club activities.

Category H: Instructor's Professional Role and Development

59. Assist occupational specialists and guidance counselors.

a. Potential drop-outs were identified to the occupational and guidance specialist for career counseling.
b. The instructor worked with the occupational and guidance specialist to match the interests and abilities of students with potential careers.
c. The instructor worked with the occupational and guidance specialist to help students develop self-awareness, self-confidence, and mature attitudes toward careers.
d. Career options were discussed with students.

Category I: Unique Competencies

67. Serve as occupational resource person for other teachers.

a. Occupational information based on one's work experience was provided to other teacners.
b. Personal teaching experiences and relationship to occupational experiences were discussed during informal gatherings.
c. Occupations related to specific subject fields (science, social studies, art, music, etc.) were shared with other teachers.
d. Various persons in one's vocational area were identified as valuable resource persons.

68. Develop a career education library.

a. Goals and objectives for career education library were generated and agreed upon by all appropriate school personnel (teachers, librarians, principal, etc.)
b. Possible sources of information were listed by appropriate school personnel.
c. Information on occupations was gathered.
d. Information on locations of occupational clusters was gathered.
e. Vital Information for Education and Work or Learner Oriented Occupational Materials (VIEW or LOOM) was made available in the library for student use.
f. A suitable location was provided to house career education materials.
g. A system of collecting and organizing occupational/career information was established.
h. All materials for general circulation were catalogued.
i. A system for circulation of material was established.
j. Requests for additional materials were solicited.
k. A system for evaluating the material was identified.
l. Material was inventoried periodically.

69. Use cooperative and other "hands-on" experiences.

a. The shadow method was used.
b. Field trips were used.
c. Students were encouraged to attend work with friends and parents in a real work situation.
d. Cooperative programs were utilized.
e. Work experience coordinators were utilized when possible.
f. A program of planned summer work was devised.

70. Make career placement opportunities available.

a. A system for coordinating career placement was developed and utilized.
b. A "Job Hunter's" bulletin board was provided in a prominent place.

58

Category H: Unique Competencies (continued)

c. Contact with the State Employment Office was maintained to obtain information on current vacancies.
d. Contact was made with school counselor and occupational specialist to obtain information on current job and educational opportunities.
e. The daily newspaper was reviewed to determine job placement opportunities.
f. Contact was made with the U.S. Department of Labor to receive current status of labor market.
g. Short and long-term career opportunities were explored in local businesses.

71. Motivate students to explore career opportunities.

a. Career interest inventories were utilized by students.
b. Students were introduced to USOE occupational clusters and received information on occupations in each cluster.
c. Students chose the three USOE occupational clusters of greatest interest to them.
d. Occupations which were of interest to students were explored in three USOE occupational clusters.
e. Reports were given by students on occupation.
f. Hands-on experiences were provided for students in at least one occupation in each of three USOE occupational clusters.
g. Students were encouraged to narrow down the cluster of interest from three to two or one.
h. Additional experiences were provided to explore career opportunities in remaining cluster occupation.

72. Assist students in applying learning to the world of work.

a. Simulated work experiences were provided for students to relate classroom experiences to the world of work.
b. Role-playing experiences were provided for students to relate classroom experiences to the world of work.
c. Opportunities for discussion of classroom experiences and their relation to the world of work were provided.
d. Student's prior experience was related with work task within an occupational role.
e. Competencies needed in an occupation were analyzed and educational experiences were provided before student went to work experience situation.
f. Employers were interviewed to see if remedial or additional educational experiences were necessary to support work experience situation.

73. Assist students in understanding the free enterprise system.

a. Principles of competition were discussed in class.
b. Information on setting up a business was provided in classroom discussion.
c. Field trips to see business in action were planned and carried out.
d. Group corporations of students were developed to plan "marketing strategies" to deliver a particular product to the consumer.
e. Capitalism was discussed in class.
f. The benefits of capitalism and the free enterprise system were discussed.
g. The high standard of living enjoyed by American people was discussed as being a product of the free enterprise system.
h. Aspects of mixed economy were discussed including the role of business, government, labor, and the individual.

74. Help students develop values that will benefit them personally.

a. Employability skills as validated in "Florida Catalog of Occupational Objectives" were taught.
b. Work habits and interpersonal relationships were discussed both pro and con.
c. A local personnel manager was utilized to talk to class about importance of attitudes.
d. Students demonstrated desirable personality characteristics through role-playing.
e. Students demonstrated desirable personality characteristics through simulation activities.

75. Assist students in becoming aware of their interests, aptitudes and abilities.

a. Assessment instruments were selected and administered by guidance personnel and/or teachers to assist in determining student interests, aptitudes and achievements.
b. Test results were analyzed and discussed with students -- in groups or individually.
c. Test results were reported to teachers for use in curriculum planning and selection of activities and materials.
d. Students were encouraged to think of themselves in various occupational roles.

Table 11 (continued)

Category H: Unique Competencies (continued)

e. Students were encouraged to review all resources that relate to jobs.
f. Students were assisted in finding information and practical experiences to supplement findings of interest and aptitude tests.

76. Assist students in developing positive attitudes toward work.

a. Students were involved in value-clarification activities.
b. Students were involved in self-awareness activities conducted by teacher, occupational specialist and counselor focusing on student interest and abilities.
c. Experiences relating to positive attitudes toward work were discussed.
d. Audio-visual media were used to demonstrate the need for positive attitudes toward work.

77. Prepare students to succeed in their various life roles.

a. Students were made aware of the importance of continuing with a task until its completion.
b. Students were made aware of the skills and attitudes necessary for occupational success.
c. Students were assigned a specific program of development after a needs survey was administered.
d. Self-concepts and goals of personal interests were redefined and continuously updated.
e. Value clarifications were continuously placed before the students for evaluation of personal goals.

78. Provide exploratory experiences in various occupations.

a. Simulation activities were utilized in the classrooms.
b. Field trips were planned to observe the nature of various occupations.
c. Audio-visual media presentations were used to show various occupations.
d. Community resource personnel were invited to "show and tell" of their occupational experiences.
e. Teachers with occupational experience were invited to share their occupational experiences.
f. Parents of students were used as resource persons and site guides with field trips related to the activities being taught.
g. Role-play of various salable skills was utilized to reinforce above teaching areas.

79. Assist students in recognizing the social/economic benefits of careers.

a. Students were provided opportunities to develop economic awareness.
b. Information on social and economic benefits of careers was provided.
c. Teachers were exposed and updated on methods of "how-to" implement concepts of social/economic benefits within their present curriculum.
d. Free enterprise projects were determined by students and activities developed to meet the objectives and goals of the course guidelines.
e. Community leaders worked with both teachers and students in helping explain the roles of the students in the future as well as present.

80. Guide students through career education experiences.

a. Simulated work experiences were provided in the classroom.
b. Role-playing activities were conducted in the classroom.
c. Activity-based, occupationally oriented learning activities were planned or implemented using project GROW format (CEC materials).
d. Planning sessions were held with academic teachers, community resource individuals, guidance and counseling personnel and students to provide students with integrated learning experiences.

81. Provide experiences to make students aware of various occupations.

a. Career awareness concepts were planned and implemented at each grade level.
b. Audio-visual media presentations were used to provide information on occupations.
c. Field trips were planned and taken to provide real-life observations.
d. Career information brochures were provided.
e. After conducting a career interest survey with middle school and high school students, shadowing ongoing experiences were provided.
f. Simulated or actual work experiences were provided.
g. Role-playing career opportunities were provided elementary students.

82. Assist students in recognizing the educational requirements of various occupations.

a. Occupational manuals with job descriptions and educational requirements were made available.
b. Educational requirements for jobs were pointed out in newspaper ads.

Category H: Unique Competencies (continued)

c. Community resource personnel provided information regarding educational requirements for various occupations.
d. Vital Information for Education and Work (VIEW) materials were utilized.
e. Educational requirements of various careers were discussed.
f. Community resource person, field trips, and "shadowing" experiences provided information regarding educational requirements of various careers.
g. Assist students in recognizing the education requirements of occupations.
h. Career-related curriculum materials were used in the subject areas, when available and appropriate.

83. Assist students in understanding the relationship between one's career and lifestyle.

a. Students were provided experiences essential to establishing life priorities.
b. Students were assisted in the selection of their educational goals.
c. Students were assisted in family size planning.
d. Students received an explanation of the effect of a career choice upon earnings, social status, work environment, work hours, residence, creativity, and freedom of decision making.
e. Guidance Associates sound filmstrip program entitled "Careers and Lifestyles" was used.

84. Prepare students to enter an occupation or job.

a. Job entry skills were mastered by students.
b. Guidance personnel and/or teachers provided activities to all school learners for development of the following employability skills:
   i. writing a resume
   ii. locating job opportunities
   iii. filling out job applications
   iv. attending job interviews.
c. Guidance personnel and/or teacher conducted activities in human relations related to successful employment.
d. Positive work habits and attitudes and proper grooming were developed through planned classroom/guidance activities, i.e., role-playing, simulation, audio-visual materials, etc.
e. Problem-solving techniques were taught.
f. Problem-solving abilities were developed.

85. Prepare students with employability skills to maintain and advance in the occupation.

a. Role-playing activities relating to employability skills were conducted.
b. Small group counseling sessions were conducted on positive behaviors on the job.
c. A list of desirable employable characteristics were compiled for each student.
d. Planned activities to enhance positive employability skills were conducted in small groups.
e. Reinforcement was given each student each time they demonstrated positive employability behavior.
f. Employability skills materials were presented to students for their use.

86. Assist students in developing career decision-making skills.

a. Selecting a career within the scope of one's personal interests, abilities and aptitude was discussed.
b. Interest, aptitude, and ability test results were discussed with the students to assist them in making career decisions.
c. Information about skills and training necessary for various jobs was provided.
d. Hands-on experiences were provided.
e. A model for decision making was taught.
f. Factors and procedures for making career decisions were explored using employability skills materials.
g. Reactions to career exploration experiences were discussed.
h. School learners were referred to placement personnel or guidance counselors.

87. Assist students in developing responsibility for their own career development.

a. A philosophy was taught concerning the individual's responsibility for his/her own personal development.
b. Students were encouraged to seek career information from the school library and resource persons in the community and the school.
c. The cyclical nature of career choice was discussed.
d. Opportunities were provided for students to become acquainted with career development materials available and staff persons trained to assist in career guidance.

APPENDIXES

APPENDIX A

BEST COPY AVAILABLE

CAREER EDUCATION

INSTRUCTIONS

Listed below are various skills that may or may not be important to Vocational Education teachers, administrators and supervisors who are involved in Career Education. Please read each item carefully and rate each item based on its importance to persons in positions similar to yours. Some items may relate more to teaching while others may relate more to administration and supervision of Career Education programs. There are no right or wrong responses; some items may be very important while others may not be important. Please rate the importance of each item by circling the appropriate number to the right, from 1 = Very Important, to 6 = Not Important. Note that the first item has been marked as an example.

	Very Important					Not Important
0. Use sound principles of public speaking.	1	(2)	3	4	5	6
1. Develop rationale for Career Education	1	2	3	4	5	6
2. Identify local manpower needs	1	2	3	4	5	6
3. Assist in planning a career education program.	1	2	3	4	5	6
4. Use a career education advisory committee	1	2	3	4	5	6
5. Assist in determining long-range career education program objectives	1	2	3	4	5	6
6. Assist in determining short-range career education program objectives.	1	2	3	4	5	6
7. Develop career education model for entire district	1	2	3	4	5	6
8. Apply research to the career education program	1	2	3	4	5	6
9. Coordinate the vocational ed. program(s) with total career education goals	1	2	3	4	5	6
10. Assist in developing vertical articulation into a complete career ed. program	1	2	3	4	5	6
11. Involve students in planning/implementing career education program.	1	2	3	4	5	6
12. Conduct career education meetings, workshops, etc.	1	2	3	4	5	6
13. Implement a career education inservice program	1	2	3	4	5	6
14. Assist in evaluating the effectiveness of career education program.	1	2	3	4	5	6
15. Assist in conducting a student follow-up study	1	2	3	4	5	6
16. Identify strategies and activities that will meet career education objectives	1	2	3	4	5	6
17. Evaluate potential career education resources and materials	1	2	3	4	5	6
18. Use materials available in state (LOCAVIEW, FAIS, Pro-CESS, etc.).	1	2	3	4	5	6
19. Develop career education materials	1	2	3	4	5	6
20. Use services of other professionals to support career education program	1	2	3	4	5	6
21. Assist other teachers in organizing career education materials	1	2	3	4	5	6
22. Develop bilingual career education materials when necessary	1	2	3	4	5	6
23. Provide career education experiences for disadvantaged students.	1	2	3	4	5	6
24. Provide career education experiences for handicapped students	1	2	3	4	5	6
25. Use variety of community resources	1	2	3	4	5	6
26. Direct individual and group field trips.	1	2	3	4	5	6
27. Conduct group discussions	1	2	3	4	5	6
28. Stimulate learning through brainstorming and buzz group techniques.	1	2	3	4	5	6
29. Direct students in instructing other students.	1	2	3	4	5	6
30. Employ the techniques of role playing and simulation	1	2	3	4	5	6
31. Direct student study of texts and references	1	2	3	4	5	6
32. Direct student laboratory experience.	1	2	3	4	5	6
33. Direct students in applying problem-solving techniques.	1	2	3	4	5	6
34. Direct the project method	1	2	3	4	5	6
35. Employ oral questioning techniques	1	2	3	4	5	6
36. Employ reinforcement techniques	1	2	3	4	5	6
37. Provide instruction for slower and more capable students	1	2	3	4	5	6
38. Present information through an illustrated talk	1	2	3	4	5	6

	Very Important					Not Important
39. Demonstrate a manipulative skill	1	2	3	4	5	6
40. Demonstrate a concept or principal	1	2	3	4	5	6
41. Direct individualized instruction.	1	2	3	4	5	6
42. Conduct team teaching.	1	2	3	4	5	6
43. Present information using a subject matter expert	1	2	3	4	5	6
44. Illustrate with bulletin boards	1	2	3	4	5	6
45. Illustrate with models and real objects.	1	2	3	4	5	6
46. Present information with overhead projector	1	2	3	4	5	6
47. Present information with filmstrips and slides	1	2	3	4	5	6
48. Present information with films.	1	2	3	4	5	6
49. Present information with televised materials	1	2	3	4	5	6
50. Direct programmed instruction	1	2	3	4	5	6
51. Present information with the chalkboard.	1	2	3	4	5	6
52. Evaluate student performance in relation to career education objectives	1	2	3	4	5	6
53. Supervise or administer the career education program	1	2	3	4	5	6
54. Assist in preparing budget for career education program	1	2	3	4	5	6
55. Manage resources such as time, money, materials, etc.	1	2	3	4	5	6
56. Assist in writing job descriptions of career education staff.	1	2	3	4	5	6
57. Write proposals for funding career education activities	1	2	3	4	5	6
58. Maintain student progress records.	1	2	3	4	5	6
59. Assist occupational specialists and guidance counselors	1	2	3	4	5	6
60. Assist students in receiving career guidance services	1	2	3	4	5	6
61. Use individual and group career counseling techniques	1	2	3	4	5	6
62. Assist students in making career decisions based on facts.	1	2	3	4	5	6
63. Maintain good community relations.	1	2	3	4	5	6
64. Maintain positive working relationship with other individuals, organizations	1	2	3	4	5	6
65. Hold a "Career Day" or other similar activities	1	2	3	4	5	6
66. Organize a student "career" club	1	2	3	4	5	6
67. Serve as occupational resource person for other teachers	1	2	3	4	5	6
68. Develop a career education library	1	2	3	4	5	6
69. Use cooperative and other "hands-on" experiences.	1	2	3	4	5	6
70. Make career placement opportunities available.	1	2	3	4	5	6
71. Motivate students to explore career opportunities	1	2	3	4	5	6
72. Assist students in applying learning to the world of work.	1	2	3	4	5	6
73. Assist students in understanding the free enterprise system	1	2	3	4	5	6
74. Help students develop values that will benefit them personally	1	2	3	4	5	6
75. Assist students in becoming aware of their interests, aptitudes and abilities	1	2	3	4	5	6
76. Assist students in developing positive attitudes toward work.	1	2	3	4	5	6
77. Prepare students to succeed in their various life roles	1	2	3	4	5	6
78. Provide exploratory experiences in various occupations.	1	2	3	4	5	6

CONTINUED

	Very Important					Not Important
79. Assist students in recognizing the social/economic benefits of careers	1	2	3	4	5	6
80. Guide students through career education experiences.	1	2	3	4	5	6
81. Provide experiences to make students aware of various occupations	1	2	3	4	5	6
82. Assist students in recognizing the educational requirements of various occupations	1	2	3	4	5	6
83. Assist students in understanding the relationship between one's career and lifestyle.	1	2	3	4	5	6
84. Prepare students to enter an occupation or job	1	2	3	4	5	6
85. Prepare students with employability skills to maintain & advance in the occupation	1	2	3	4	5	6
86. Assist students in developing career decision-making skills	1	2	3	4	5	6
87. Assist students in developing responsibility for their own career development	1	2	3	4	5	6
88. Infuse the career education concept into the traditional vocational program.	1	2	3	4	5	6
89. Provide career education experiences for students with various levels of ability	1	2	3	4	5	6

In the blanks below, please add any additional Career Education skills that you feel are important. Please rate the importance of these additional skills.

90. _____							
91. _____	1	2	3	4	5	6	
92. _____	1	2	3	4	5	6	
93. _____	1	2	3	4	5	6	
94. _____	1	2	3	4	5	6	
95. _____	1	2	3	4	5	6	

Please check the appropriate response for each item as it applies to you in your current position.

PROFESSIONAL DATA

1. Your present title/subject: _____
2. No. Years in present position: ___1-5; ___6-10; ___11-15; ___16-25; ___over 25.
3. Total No. Years in Vocational Education: ___1-5; ___6-10; ___11-15; ___16-25; ___over 25.
4. Level(s) of teaching experience: ___Middle School; ___Secondary; ___Comm. College; ___Adult; ___Univ.
5. Total No. Years work experience (outside field of education) ___1-5; ___6-10; ___11-15; ___16-25
6. Highest degree held: ___High School; ___Associate; ___Bachelor's; ___Master's; ___Advanced Master's; ___Doctorate; No. of quarter hours beyond your highest degree: _____.
7. Age: ___20-30; ___31-40; ___41-50; ___51-60; ___over 60.
8. Sex: ___Male; ___Female.
9. To allow us to contact non-respondents please indicate your county: _____.

THANK YOU. PLEASE PLACE THE COMPLETED QUESTIONNAIRE IN THE SELF-ADDRESSED, STAMPED ENVELOPE PROVIDED, AND RETURN IT TO US BY MAIL.

VOCATIONAL EDUCATION
Florida State University
Tallahassee, Florida
32306

APPENDIX B

College of Education
Vocational Education
904 Wildwood Drive

The Florida State University
Tallahassee, Florida 32306

November 12, 1975

We would like to ask your assistance and that of selected vocational education teachers involved in career education in your school district. The Vocational Education Department at FSU is in the process of determining what skills are important to vocational, technical and industrial arts educators who are involved in the Career Education Movement.

We would like to make use of your expertise in career education. Therefore, would you assist us by rating the attached list of career education competencies as they would apply to someone in a position similar to yours? There is no doubt that your professional duties require much of your time. However, it is important that we receive as many responses as possible. You can help us by doing the following:

1. Completing and returning the attached competency list by November 26, 1975. A business reply envelope is enclosed.

2. Distributing the additional packet(s) to outstanding vocational, technical or industrial arts teachers who use the career education concept in his/her teaching. A similar cover letter is enclosed in each packet.

Your assistance will be greatly appreciated. We look forward to receiving your responses.

Sincerely yours,

Robert E. Andreyka

Robert E. Andreyka
Program Leader

REA:emo

ENC: Competency List
Return Envelope
Teacher Packet(s)

APPENDIX C

College of Education
Vocational Education
904 Wildwood Drive

The Florida State University
Tallahassee, Florida 32306

November 12, 1975

TO: Selected Outstanding Vocational Educator

We would like to ask your assistance in an exemplary project which is being conducted by the Vocational Education Department at FSU. This project is designed to develop a competency based approach to teacher education.

We would like to make use of your expertise in teaching in a vocational education program in the local school district. Would you assist us by rating the attached list of career education competencies as they would apply to someone in a classroom or laboratory position similar to yours?

There is no doubt that your professional duties require much of your time. However, it is important that we receive as many responses as possible. If at all possible, please return this competency list by November 26, 1975. A business reply envelope is enclosed.

Your assistance will be greatly appreciated. We look forward to receiving your responses.

Sincerely yours,

Robert E. Andreyka

Robert E. Andreyka
Program Leader

REA:emo

REC: Competency List
Return Envelope

APPENDIX D

College of Education
Vocational Education
904 Wildwood Drive

The Florida State University
Tallahassee, Florida 32306

December 5, 1975

Recently we mailed a survey packet asking you and your Vocational Education Teachers to participate in an exemplary project, one particular portion relating to Career Education. This project is being conducted by the Vocational Education Department at Florida State University.

Would you assist us by doing the following:

1. Follow-up on the Vocational Teachers in your county to whom you distributed the original letter and instrument. If these teachers have returned their instruments, please ask them to disregard this additional request for the return. Their replies are vital to the success of this study.

2. If you have not completed the instrument sent to you, please complete this one and the professional data section. Then mail the completed instrument in the enclosed envelope by December 19. Your reply is vital to the success of this study, also.

If you have already returned your survey instrument, please accept our appreciation.

Your assistance in this project is sincerely appreciated.

Sincerely,

Robert E Ondrejka

Robert E. Ondrejka
Program Leader

REA:cmw

ENC: Survey Instrument
Return Envelope

APPENDIX E

College of Education
Vocational Education
904 Wildwood Drive

The Florida State University
Tallahassee, Florida 32306

December 5, 1975

TO: Selected Vocational Teachers

Recently we mailed a survey packet asking you to participate in an exemplary project. This project, and this particular sub-section relating to Career Education Competencies, is being conducted by the Vocational Education Department at Florida State University. If you have already returned the instrument sent you, please disregard this letter.

We may have been unrealistic in setting our deadline of November 30, originally, thus we are delaying our date for analysis of the data until December 19.

We would appreciate your assistance by completing the enclosed survey instrument and the professional data section, and returning it as soon as possible. Your reply is vital to the success of this research study.

Your assistance in this project is sincerely appreciated.

Sincerely,

Robert E. Andreyka

Robert E. Andreyka
Program Leader

REA:emo

ENC: Survey Instrument
Return Envelope

APPENDIX F

Open-Ended Responses for Career Education

1. Sell classroom teachers on the Career Education concept.
2. Involve parents in the career decision making process.
3. Acquire active school board support.
4. Provide help for teachers to infuse career education into ongoing curriculum.
5. Help! Help! Help! Most classroom teachers are locked in a 6-period day with one-hour planning. We need information and guidance from Supers etc. We simply do not have the time to research info! We could do better job with more help.
6. Assist students in developing language arts skills relevant to the needs of particular occupation.
7. Assist students in developing mathematics skills relevant to the needs of a particular occupation.
8. In reference to #66--make better use of those available (FHA, HERO, VICA, FBLA, etc.).
9. Teacher must have knowledge of skills in order to pass these on to students (in their area of expertise).
10. More emphasis on preparation of teachers on giving and interpreting tests for students (COPS, Kuder, Reading, skills, etc.).
11. Re-evaluate cost of programs.
12. Separate regular students from disadvantaged.
13. Attitudes and appreciation of self.
14. Develop self awareness.
15. Provide for support of top administrators.
16. Provide substantial financial support or drop it entirely.
17. Be able to apply content knowledge to work or everyday life.
18. Assist students in recognizing that their life roles in their occupational choice may be constantly changing and that flexibility and/or adaptability are essential character traits.
19. Develop concept of "job search" as a skill to be learned.
20. Help student make a "job search" folder.
21. Motivate student to secure good honest references - motivate student to survey objectively the job opportunities. Help student understand the techniques of "fitting in" especially if others in peer group are not formally trained and can view newcomer as a real threat.
22. Having teachers actually work in positions of area they teach.
23. Assist teachers and administrators in recognizing that career education is a concept, not vocational education.
24. Provide up-to-date and current career information.
25. Give a wide choice of careers.
26. Provide some hands-on work in choice of careers.

Open-Ended Responses for
Career Education
(continued)

27. Start it in middle school and work up.
28. Utilize all community resources.
29. Secure parental cooperation at all times.
30. Develop the thirst for learning in all.
31. Expose the necessity of total development.
32. Stress indispensable academic, guidance.
33. Vocational intuitiveness in child training.
34. Teach decision making skills (not just career).
35. Evaluate all proposed action and action on, "What does it mean to the student".
36. Understand the role of Principal in bringing about change at the school level.
37. Identify change leaders in each school.
38. Employ knowledge of the political power structure as it affects support for educational programs.
39. Develop "systems" based management techniques.
40. Develop patience to answer questionnaires.
41. Actual work experience with school credit.
42. Use of community resource people in class.
43. Provide greater student participation by using inductive teaching methods.
44. Develop process goals, concurrently with behavior or performance goals.
45. Infuse the career education concept into the traditional academic program.
46. Inservice for academic teachers (K-12) to infuse career education.
47. Employ VICA as part of your program.
48. Employ staffing for all vocational students.
49. Coordinate general education programs with career education goals.
50. Assist classroom teachers in the development of activities which fuse the concepts of career education and the concepts of their subject areas.
51. Teachers should work in the private sector through summers.
52. Assist and prepare students to cope with job loss.
53. Assist students to understand aspects of job mobility.
54. Provide in-service for occasional placement specialists.
55. Provide district follow-up reports.
56. Provide district resource (persons) bank.
57. Develop and present a "plan for personal development".
58. Place certain factors under the heading "jobmanship" in curriculum.
59. Assist guidance counselor in placing student in career education classes.
60. Administratively systematize the use of community resources.
61. Provide additional opportunities for women and minorities to explore non-traditional jobs.

78

APPENDIX G

College of Education
Vocational Education
202 South Woodward

The Florida State University
Tallahassee, Florida 32306

April 19, 1976

We need your help in determining how to assess when vocational education teachers and related personnel have attained important professional competencies. The Vocational Education Program at FSU recently completed a study which identified professional competencies important to vocational teachers and related personnel.

The next phase of this project will be to identify assessment criteria for each competency. These criteria will be used to assess whether competencies have been attained. You have been identified as having expertise in one of the areas within the project. We would like to request your participation on a "jury" to examine a preliminary list of criteria and to recommend revisions.

We will be able to offer you an honorarium of $50 in appreciation for your help. Your participation will contribute to the development of more effective teacher education programs in Florida.

We will contact you soon to answer any questions you may have and determine if you are able to participate. Thank you.

Sincerely,

Robert E. Andreyka

Robert E. Andreyka
Program Leader

REA/lm

APPENDIX H

College of Education
Vocational Education
202 South Woodward

The Florida State University
Tallahassee, Florida 32306

MEMORANDUM

TO: Jury Members for Validation of Assessment Criteria

FROM: Robert E. Andreyka

DATE: April 26, 1976

Dear Colleague:

We appreciate your agreeing to serve on a jury to examine criteria that will be used to assess whether vocational educators have mastered important competencies. Please find attached a list of your responsibilities as a jury member and an outline and example of the types of criteria statements desired. Also attached is a brief overview of the Exemplary Competency-Based Vocational Teacher Education project, of which criteria identification and validation is a part.

A graduate assistant assigned to the project will be working closely with you. This individual will bring or mail the preliminary criteria statements to you and pick them up or supply mailing envelopes for your returning them.

Again, our thanks for your professional contribution to this project.

APPENDIX I

FLORIDA STATE UNIVERSITY
VOCATIONAL EDUCATION

Competency-Based Vocational Teacher Education Project

Responsibilities of Jury Members

1. Carefully examine the assessment criteria listed for each competency.
2. Determine if each criteria statement can be used to assess whether individuals have mastered the competency.
3. Make any additions, deletions, corrections or comments to the criteria statements you wish.
4. Have your revisions ready to be picked up or mail them by the date specified.

Criteria Statements Desired. When examining criteria statements, please determine if the criteria for each competency have the following characteristics:

1. Criteria statements covered all key elements of the competency.
2. Criteria statements were based entirely on the competency.
3. Criteria statements were written in past tense.
4. Criteria statements could receive only "yes" or "no" response.
5. Criteria were objective (did not rely heavily on judgement).

Example. Below is an example of a typical competency and appropriate criteria statements:

Component: Teaching in Trade and Industrial Education

Competency Category: Instructional Planning

Competency: Write a lesson plan.

Assessment Criteria:

1. The lesson was based on specific student performance objectives.
2. The introduction to the lesson was prepared.
3. An outline of the major concepts of the lesson was prepared.
4. The techniques and methods to be used in presenting the lesson were identified.
5. Learning experiences were selected based on the individual differences of students.
6. A summary of the lesson was prepared.
7. Evaluation devices/techniques were identified.
8. Resource materials were specified.

FLORIDA STATE UNIVERSITY
VOCATIONAL EDUCATION

Competency-Based Vocational Teacher Education Project

One of the main objectives of the Competency-Based Project at Florida State University is to change the teacher education curriculum from the traditional course-oriented approach to the more individualized competency or performance based approach. Instead of selecting a variety of courses in different vocational areas, individuals will work towards mastering important competencies. Where will the competencies come from? Vocational educators in Florida who are currently serving as teachers, administrators and related professionals have been involved in the competency identification process.

The Project is composed of several phases and includes the areas of Administration and Supervision, Career Education, Cooperative Vocational Education, Disadvantaged, Handicapped, Industrial Arts, Research, Trade and Industrial, and Technical Education. The team approach to identifying competencies in each area has been used, with graduate assistants, FSU faculty and other advisors as members of each team. During the Fall Quarter, each team identified a preliminary list of skills that were considered necessary for success in the different areas, such as administration, career education, etc. Each list was presented to a panel of experts for additions, corrections and revisions. The final list was developed into a questionnaire and sent to a sample of Florida vocational educators. These practitioners rated the competency statements as to <u>importance</u> for vocational educators in positions similar to their own. The team spent the Winter Quarter analyzing the results and determining which competency statements were considered most important. During the

Spring Quarter, the teams have been writing assessment criteria for the various competency statements. These criteria statements are now ready for examination by a jury. A jury has been selected for each area within the project to examine the criteria statements and recommend appropriate revisions.

The criteria for each competency will be used to determine whether individuals have mastered the competency. The criteria statements will be incorporated onto a check list that an evaluator may use to assess the individual's performance during or after the competency has been demonstrated.

BIBLIOGRAPHY

BIBLIOGRAPHY

Andreyka, R. E. Competency-based teacher education for industrial education teachers. Phase I competency and criteria identification and validation for preservice education. Tallahassee: Florida State University, 1975.

Andreyka, R. E., & Blank, W. E. Competency-based vocational teacher education in Florida. Presentation at the Florida Vocational Association Conference, Orlando: August, 1975.

Andreyka, R. E., & Blank, W. E. A checklist for the evaluation of competency-based teacher education programs. Educational Technology, 1976, 16(1), 34-36.

Blank, W. E. Analysis of professional competencies important to Florida's community college technical instructors: Implications for competency-based teacher education. Unpublished doctoral dissertation, Florida State University, June, 1976.

Bloom, B. S. (Ed.). Taxonomy of educational objectives, handbook I: Cognitive domain. New York: David McKay, 1956.

Budke, W. E., Bettis, G. E., & Beasley, G. F. Career education practice. Columbus, Ohio: The Center for Vocational and Technical Education, ERIC Clearinghouse on Vocational and Technical Education, The Ohio State University, December 1972.

Burkett, L. A. Career education: Leadership roles. Columbus, Ohio: The Center for Vocational and Technical Education, ERIC Clearinghouse on Vocational and Technical Education, The Ohio State University, 1973.

Center for Vocational Education. Listing of professional vocational teacher education modules. Columbus, Ohio: Center for Vocational Education, 1974.

Center for Vocational Education. News Release. Columbus, Ohio: February, 1975.

Cotrell, C. J., Bennett, J. B., Cameron, W. A., Chase, S. A., Molnar, J., & Wilson, R. J. Model curricula for vocational and technical teacher education: Report no. 1. Performance requirements for teachers (Final Report). Columbus, Ohio: Center for Vocational Education, 1971. (ERIC Document Reproduction Service No. ED 059 355).

Courtney, E. W. A conceptual basis for developing common curricula in teacher education programs for occupational education (Graduate Studies in Education, No. 2 Volume 3). Menomonie, Wisconsin: Stout State University, 1968. (ERIC Document Reproduction Service No. ED 022 028).

Courtney, E. W., & Halfin, H. H. Competencies of vocational teachers. A factor analysis of the training needs of teachers of occupational education. Corvallis: Oregon State University, 1969.

Crawford, L. C. A philosophy of distributive education, a report of the first step in the research project "A competency pattern approach to curriculum construction in distributive teacher education". Bethesda: 1967. (ERIC Document Reproduction Service No. ED 019 412)

Dodl, N. R., & Schalock, H. D. Competency-based teacher preparation. In J. M. Cooper, et al (Eds.). Problems and prospects for the decades ahead (Book 1). Berkeley: McCutchen, 1973.

Elam, S. Performance-based teacher education: What is the state of the art? PBTE Series: No. 1. Washington, D.C.: American Association of Colleges for Teacher Education, 1971.

Finch, C. R., & Hamilton, J. B. Issues in the implementation of performance/competency-based teacher education programs. Journal of Industrial Teacher Education, 1975, 12(4), 14-21.

Florida State Department of Education. The Florida program for improving the training, evaluation, and licensure of educational personnel. Tallahassee, Florida, 1971.

Florida State Department of Education. 1974 Report. Tallahassee: Florida State Advisory Council on Vocational and Technical Education, 1974.

Hamilton, J. B. PBTE Curricula. Paper presented at the American Vocational Association Convention, Anaheim, California: December 1975.

Houston, W. R., & Howsam, R. B. Competency-based teacher education. Chicago: Science Research Associates, 1972.

Lima, J. A project to develop a catalog of business education teacher competencies with accompanying performance based units. Tampa, Florida: University of South Florida, Vocational and Adult Education, 1972-73.

Marland, S. P. Jr. Career education - a proposal for reform. New York: McGraw-Hill Book Company, 1974.

Norton, R. E., Harrington, L., & Gill, J. Performance based teacher education: The state of the art. Columbus, Ohio: The Center for Vocational Education, The Ohio State University, 1975.

Perkins, L. H. Competencies of trade and industrial teachers as perceived by teachers, supervisors, school administrators and teacher educators. Pensacola: University of West Florida, 1975.

Ratner, M. Community college health careers project phase II - teacher preparation (Final Report). Albany: New York State Department of Education, 1967. (ERIC Document Reproduction Service No. ED 019 505)

Schaefer, C. J. A rationale for comprehensive personnel development in a state. Paper delivered at the Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education. Las Vegas, Nevada. September 1971.

Schmieder, A. Competency-based education: The state of the scene. PBTE Series: No. 9. Washington, D.C.: American Association of Colleges for Teacher Education, 1973.

Smith, G. D., & Woodin, R. J. Career education in-service guidelines for educational administrators. Knoxville: University of Tennessee, College of Education, Department of Vocational-Technical Education, August 1973.

Spaziani, R. L., & Courtney, E. W. The application of Bloom's cognitive taxonomy to selected professional education competencies. Corvallis: Oregon State University, 1971.

Terry, D. R., Thompson, R. L., & Evans, R. N. Competencies for teachers: Vocational education shows the way. Urbana: Illinois University, 1972. (ERIC Document Reproduction Service No. ED 067 467)

U.S. Department of Health, Education, and Welrare, Office of Education. An introduction to career education, a policy paper of the U.S. Office of Education. U.S. Department of HEW/OE, publication no. (OE) 75-00504. Washington, D.C., 1974.

Volger, D. C., & Patton, G. The development and implementation of preservice and inservice occupational teacher education programs designed to meet certification and baccalaureate degree requirements. Ann Arbor: The University of Michigan, 1974.

Walsh, J. P. Teacher competencies in trade and industrial education. Washington, D.C.: U.S. Government Printing Office, 1960.

OE 0008 345